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# THE JOURNAL

## OF THE ARKANSAS

### MEDICAL SOCIETY

Volume 91 Number 1

June 1994

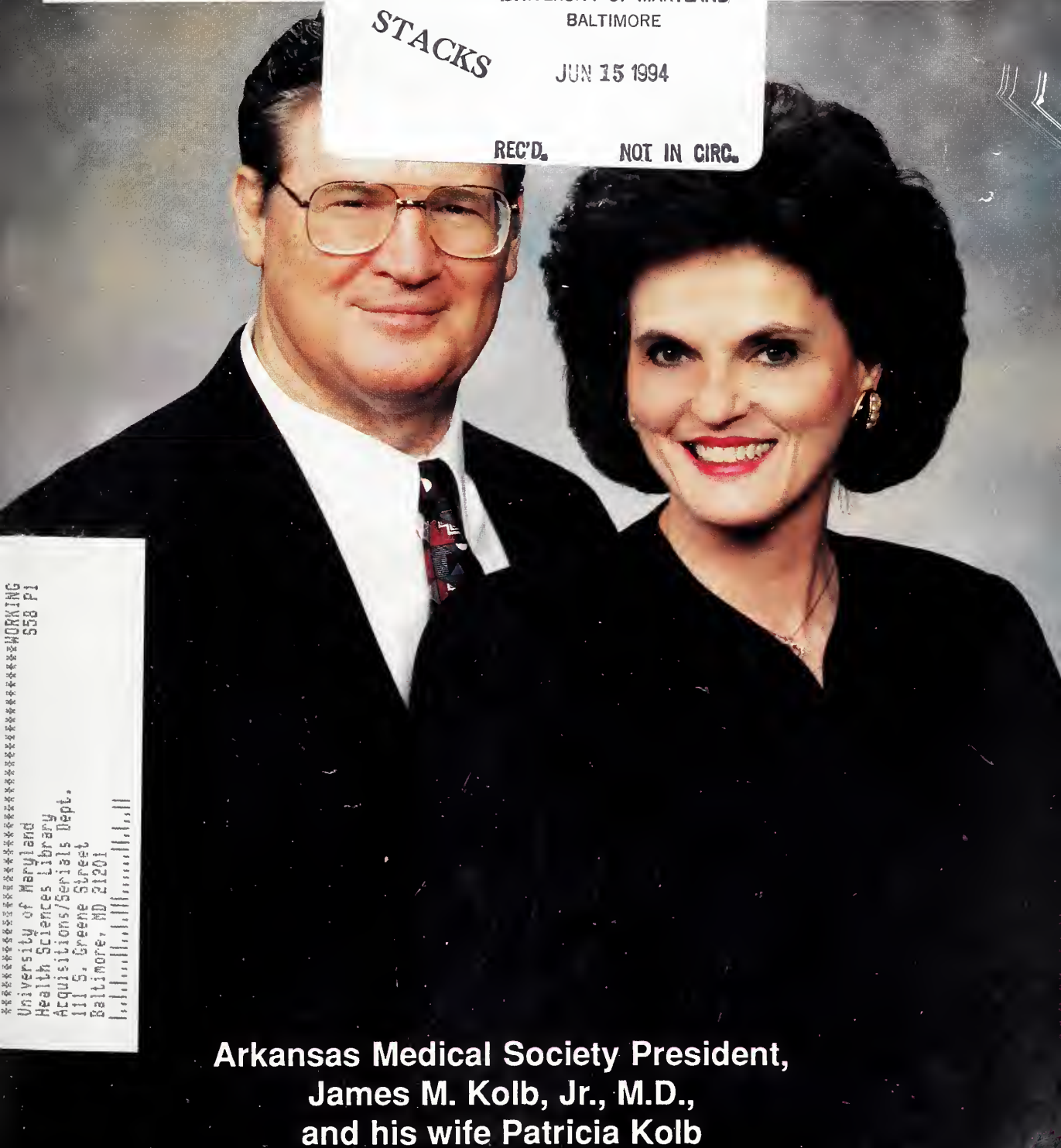
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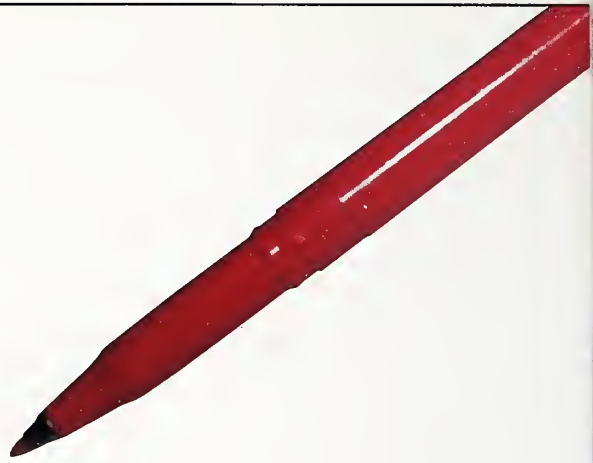


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Cover photo was taken by M.C. Milligan, M.D., a retired physician from Pine Bluff.

# Plant A Seed

Ben N. Saltzman, M.D.\*

Quite early in life, I realized that I would never be a world-beater in any of my endeavors. I was left-handed and right-eyed and had none of the qualifications for excellence in athletics. In school my grades were better than average and I was able to muddle through without being left behind. My parents wanted me to become a violinist and a physician. As soon as I left home, I dropped the violin. Medical school was not easy for me, but I got through. I enjoyed my internship and part of a residency at Gorgas Hospital in the Panama Canal Zone and then spent four years on active duty with the Army of the United States during World War II in the Panama Canal Zone on Detached Duty with the civilian population of the Zone. I did receive a Commendation Medal from the Army.

In my private practice as a family doctor in Mountain Home, Arkansas, I seemed to do okay. My patients needed me, and I liked them. Very soon, I was invited to join the Rotary Club of Mountain Home, and Rotary became my avocation. It's principles of "service above self" appealed to me and I felt that I had found a "niche".

My club seemed to appreciate my enthusiasm, and in rapid order, elected me club president, governor of one of the largest Rotary Districts in the world, and later helped elect me a director of Rotary International. I was later appointed a trustee of the Rotary Foundation of Rotary International. I had the privilege of chairing and serving on many committees of Rotary International and the Foundation. As my medical practice grew, I acquired several partners and was able to devote more time to my avocation.

Rotary International was founded in Chicago in 1905, first as a single club dedicated to providing good fellowship and later as a means of helping each other

as representatives of business and the professions. It rapidly grew to its present status of approximately 1,190,000 Rotarians in about 27,000 clubs, in 502 districts in 150 countries plus 35 geographical areas of the world. Early club activities related to vocational service, community service, club service and later international service. Each club concerned itself with activities with matters relating to their own communities. They helped build city parks, supported the Boy Scouts and Girl Scouts, supported local charities and generally developed good citizens. The clubs for many years functioned individually rather than corporately. In 1947, the founder of Rotary, Paul Harris, a Chicago attorney, died.

To honor his memory, a dormant Rotary Foundation was re-dedicated in his name to become known as the Paul Harris Fellowship for International Understanding, Good Will & Peace. This was to be accomplished by the International Exchange of Graduate Students to countries and universities other than their own, for one year scholarships. The only obligations of the students was to speak to Rotary Clubs in the countries assigned to them about their own countries and upon returning home to speak to the sponsoring clubs about their experiences abroad. This became a most popular program and contributions to the Foundation by the Rotarians of the world were most generous. This was Rotary's first attempt at corporate action. Various other programs came under the Foundation banner and soon became the favorite activity of Rotarians world-wide.

In 1972, I wrote to the president of Rotary as a physician stating that I felt the Lions International had stolen a march on us by sponsoring a vision program that was appreciated all over the world. We were an older organization than Lions, but the latter's name became synonymous with vision and therefore was better known. The Lions were known for their provision and training of seeing-eye dogs, for their Braille

\* Ben N. Saltzman, M.D., is a retired family practitioner from Mountain Home, Arkansas.

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# THE JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

Volume 91 Number 5

October 1994

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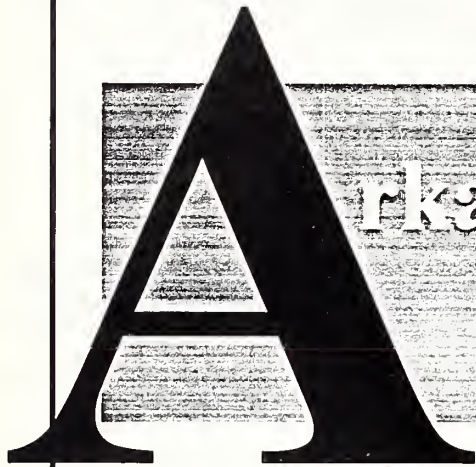
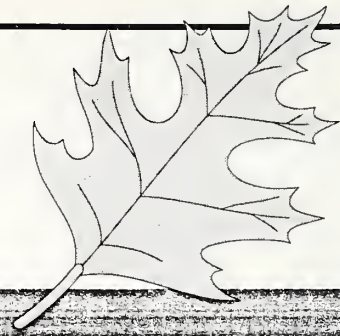
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Cover photo was taken by AMS staff member LeAnne Rogers.





# Arkansas Medical Society 1994 Fall Meeting

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Sunday, November 20, 1994  
DeGray Lodge  
Lake DeGray State Park

---

## Tentative Schedule

- |            |   |
|------------|---|
| 9:00 a.m.  | Council Meeting   |
| 10:30 a.m. | Brunch<br><i>AMS members and guests invited.</i>  |
| 11:30 a.m. | House of Delegates<br><i>Discussion about 1995 Arkansas General Assembly,<br/>AMS legislative proposals and expected issues to come<br/>before the Legislature.</i> |

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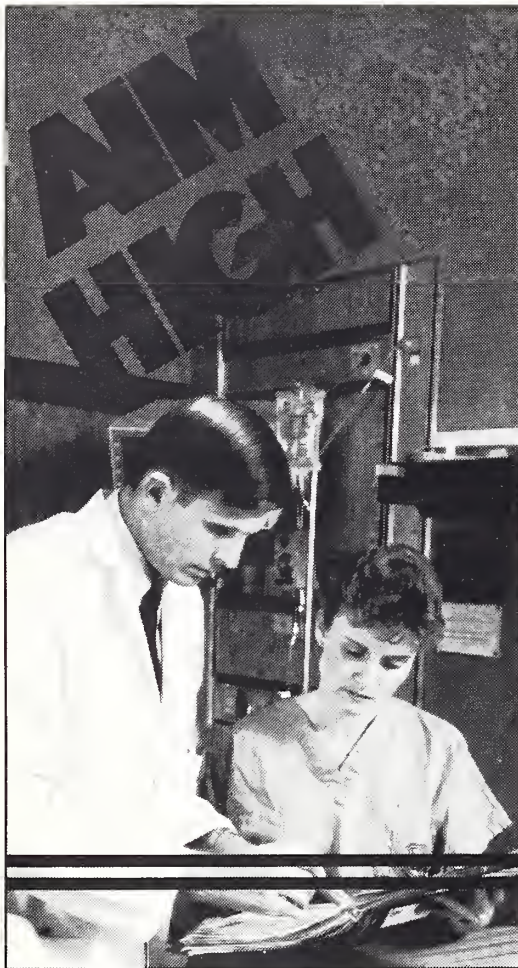
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1A. Title of publication. The Journal of the Arkansas Medical Society.	10. Extent and nature of circulation:	Average No. copies each issue during preceding 12 months	Actual No. copies of single issues published nearest to filing date
1B. Publication No. 283-860.			
2. Date of filing: September 30, 1994.			
3. Frequency of issue: Monthly.			
3A. No. of issues published annually: 12.			
3B. Annual subscription price: \$30.00, domestic; \$40.00 foreign.			
4. Complete mailing address of known office of publication (not printers), #10 Corporate Hill Dr., Suite 300, Little Rock, Arkansas 72205.	A. Total No. copies (net press run):	3,969	3,882
5. Complete mailing address of the headquarters of general business offices of the publishers (not printers), #10 Corporate Hill Dr., Suite 300, Little Rock, Arkansas 72205.	B. Paid and/or requested circulation:		
6. Full names and complete mailing address of publisher, editor and managing editor:	1. Sales through dealers and carriers, street vendors and counter sales:	0	0
Publisher: Arkansas Medical Society, #10 Corporate Hill Dr., Suite 300, Little Rock, Arkansas 72205.	2. Mail subscription:	3,854	3,804
Managing Editor: Cindy W. Sawrie, #10 Corporate Hill Dr., Suite 300, Little Rock, Arkansas 72205.	C. Total paid and/or requested circulation:	2,604	2,548
7. Owner: Arkansas Medical Society, #10 Corporate Hill Dr., Suite 300, Little Rock, Arkansas 72205.	D. Free distribution by mail, carrier, or other means, samples, complimentary, and other free copies:	1,250	1,256
8. Known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages or other securities (if there are not, so state): none.	E. Total distribution (sum of C and D):	3,854	3,804
9. For completion by nonprofit organizations authorized to mail at special rates (DMM Section 424.12 only). The purpose, function and nonprofit status of this organization and the exempt status for Federal income tax purposes has not changed during preceding 12 months.	F. Copies not distributed:		
	1. Office use, left over, unaccounted, spoiled after printing:	115	78
	2. Return from news agents:	0	0
	G. Total (sum of E, F1 and 2 - should equal net press run shown in A):	3,969	3,882
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Cover designed by Paul Parris of Bryant, Arkansas.

# Information Highway Travelling Back to Our Roots

H. Patrick Stern, M.D.\*

Michael W. Mellon, Ph.D.\*\*

Thomas P. Stern, B.S.\*\*\*

Robert Fiser, M.D.\*\*\*\*

Medicine is in a tremendous state of flux and appears to be heading toward a system that eventually will be economically driven by capitation. Why the finest medical care system in the world is being forced to change raises many questions. Due mainly to cost factors rising more rapidly than any other part of budgets, business seems to be the driving force to this change as opposed to the medical community, the patients, or even government. One of the largest expenses is for medical care during the last 2 to 3 months of life most often resulting from in-hospital care. Our challenge is regulating costs while preserving the quality of care.

Two factors that will be of great importance in the changing climate of medicine are computers and the concept of community based medical care. Computer technology has already become an extremely important backbone of medicine and will be a central core of future change. Although medical resources have been concentrated in large metropolitan areas such as Little Rock just as government has been centralized in Washington, D.C., we believe medicine should return to a community focus as change occurs. The fragmentation of medical care in which a person has been dissected into many organ systems will need to return to a holistic, wellness perspective which provides continuity of care across the life-span.

Computers can enhance this change by maintaining quality care, promoting education, rapidly expanding medical knowledge, and allowing care to be delivered in the community of an individual rather than

the individual being required to leave. Computers will allow every provider to have the world of medical knowledge at their fingertips. Not only can information in journals be accessed quickly, but telemedicine will also allow the tertiary care physician to interact with the primary care physician and the patient in their community. Computerized medical records offer timely review of medical care to enhance quality, and also a data base which allows research to be accomplished much more efficiently. Computers and telemedicine will also allow the primary care physician to work through the hands of ancillary health providers who can go into the home to offer care to families. Family members will also be able to use the same resources to care for members of their family under the watchful eye of their primary care physician. Thus the elderly may be able to receive quality care at reasonable cost in the comfort of their home with their family, rather than be delivered in the final days of their life into the expensive, and relatively speaking, impersonal environment of the hospital. When hospitalization becomes necessary, the rural community hospital rather than the urban hospital or tertiary care center will be able to provide quality care at a much more reasonable cost.

This knowledge can be used to help formulate a new concept termed the Community Care Center (CCC) which can return the focus of medical care to communities. The CCC will focus on prevention and wellness helping each individual fulfill their full physical, emotional, intellectual, and spiritual potentials throughout their life. Prevention and wellness through healthy life styles will be the emphasis of medical care. The last 3 decades of behavioral medicine research has highlighted the increasingly important role that behavior and lifestyle play not only in an individuals susceptibility to disease, but also in its treatment and prevention. Medical problems will be addressed through early recognition and intervention, rather than an attempt to treat chronic complicated

\* H. Patrick Stern, M.D., is Chief, Section of Behavioral Pediatrics, Associate Professor of Pediatrics and Assistant Professor of Psychiatry and Behavioral Science, UAMS.

\*\* Michael W. Mellon, Ph.D., is a pediatric psychologist, Assistant Professor of Pediatrics, UAMS.

\*\*\* Thomas P. Stern, B.S., is a second year medical student, UAMS.

\*\*\*\* Robert Fiser, M.D., is Assistant Vice Chancellor for Regional Programs, UAMS.

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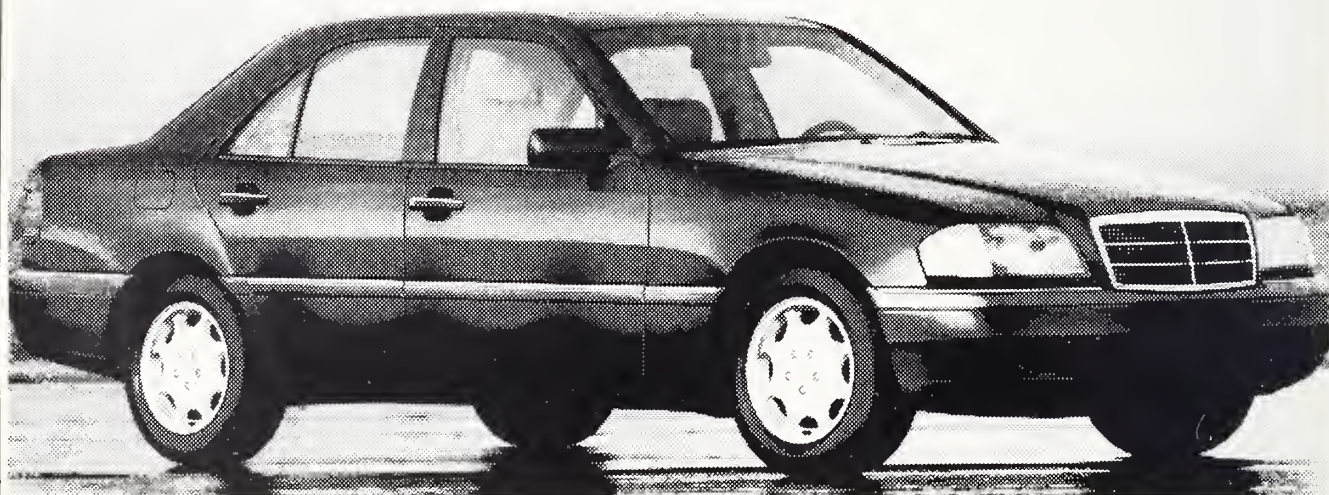
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Cover photo was taken by the Arkansas Department of Parks and Tourism.



# Smoke and Mirrors

Lee Abel, M.D.\*

Perhaps one of the most amazing spectacles in the annals of Congressional hearings was the recent testimony of the top executives of the American tobacco companies. As a friend said after hearing their testimony, "What planet are those guys from?" It was a sort of *Twilight Zone* experience as one watched the executives acting so serious and sincere while speaking utter nonsense.

The tobacco companies have of course long denied and obfuscated the real risks of their products.<sup>1</sup> They continue to regularly dispute adverse findings published in medical literature. They also seem blissfully unaware of the beliefs of their own loyal customers when they deny that smoking is addictive. Most smokers that I see readily acknowledge that smoking is bad for their health, and they almost always say they want to stop. Most smokers also freely acknowledge that they are "hooked."

In making hospital rounds, I've grown accustomed to finding patients with cancer often residing in smoke filled rooms. And given the poor response of lung cancer to treatment, cigarette smoke for me has become the smell of death. For the young and restless, that very association of smoking with risk and death may provide some of the allure of smoking. Smoking can seem like a defiant act of bravado and rebellion. Such sentiments pass with advancing age (as do others like "don't trust anyone over 30"), but even with will power, hypnosis, group therapy, and the nicotine patch, the once youthful smoker faces a difficult task to stop smoking.

The tobacco industry does not want us to focus on such unpleasant things as addiction and premature death. The image they push to sell their product is quite attractive. We are presented with Old Joe the Camel (widely recognized by grade school children<sup>2,3</sup>) who is so cool he can party hearty every night. When

the ads use people instead of cartoons, the people are always of a certain type: happy, popular, carefree, robust, successful, and often affluent. The sad statistics on smoking tell a very different story. They tell us that smokers have much poorer health than non-smokers, and they also tell us that smoking is becoming a class phenomenon. The rates of smoking are much lower among well educated and affluent individuals as compared to the less well educated and poor. Clearly there is a message here about the need for better strategies to reach the poor and motivate them to take better care of themselves.

Fortunately, we are seeing more and more restrictions on smoking in public places. The tobacco companies have responded with a series of ads that even for them seem over the top. In these ads, the tobacco companies portray themselves as guardians of freedom and spokesmen for tolerance and common sense. One series which disputed the dangers of second hand smoke went so far as to have a headline reading, "In any dispute, facts have to matter." For the tobacco companies to act like the facts are on their side and not on the side of the scientific and medical community, is truly astounding.

R.J. Reynolds has developed and will soon introduce a new cigarette that produces less smoke (by virtue of a charcoal tip that heats but does not burn the tobacco). The company apparently hopes this less intrusive form of smoking will stem the tide of anti-smoking legislation. It was reported that the company spent more than 500 million dollars in developing its new low smoke, smoke. I wonder if that much money has ever been spent on research into preventing teenage smoking.

Even with a less offending cigarette, the domestic market is not where tobacco companies see their greatest growth potential. The international market contains the big reservoir of potential victims/customers. In this effort, the companies are aided by our government in trying to open new markets for American

\* Dr. Abel specializes in internal medicine and is affiliated with the Little Rock Diagnostic Clinic.

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Cover photo was taken by A.C. Haralson, Arkansas Department of Parks and Tourism.



# Life Savers

Ben N. Saltzman, M.D.

As a retired family physician, well removed from active practice, I have been dismayed by the medical literature that confronts me on a daily basis. It is not literature and most certainly it is not medical...Perhaps we can call it medical economics. Imagine my pleasure when I met Dr. Jim Cook, a general internist who had been practicing in our area for the past eleven years. He has been on the active staff of our regional hospital and has been instrumental in teaching first responders resuscitative techniques in the hospital. He had come to a meeting of the Baxter County segment of the Arkansas Heart Association to speak on a subject dear to his heart.

He informed us that he had been particularly impressed with an article written by Bob Pettus, an emergency medical technician paramedic employed by the regional hospital. Dr. Cook was very much in agreement with Pettus' opinions, and I will quote liberally from the notes I took.

In the article, Pettus stated that time, until defibrillation, is the major determining factor for survival. The American Heart Association in its 1992 Guidelines for Cardio-Pulmonary Resuscitation and Emergency Care emphasizes that a chain of events is necessary to improve survival in the out-of-hospital cardiac arrest. This chain of survival has four links: early access, early CPR, early defibrillation, and early advanced Cardiac Life Support are all necessary for survival. Symbolically, he states that while all links in the "chain of survival" have strength, the chain is only as strong as its weakest link. He wonders how strong Arkansas' defibrillation link is.

The American Heart Association states that while all links in the chain of survival have strength, early defibrillation is the most important factor determining survival.

Actually, Emergency Medical Services in Arkansas has made great strides due to the work of EMS personnel, the trainers, the fire departments, and the Arkansas Department of Health.

Many survivors have been saved from early death by the work of those mentioned above. In addition,

the Training and Implementation of dispatch centers, ambulance services, first responder programs and Community Cardiopulmonary Resuscitation have saved many. However, all of these programs address only three of the survival chain links.

Other states have shown that adding an early defibrillation link, doubles or triples survival rates. The 1992 Guidelines for CPR and ECC Committee state that "Every person required to perform CPR as part of their work should be trained and permitted to use automated external defibrillation" and that "the placement of Automated External Defibrillation in the hands of large numbers of people trained in their use may be the key intervention to increase the survival chances of out-of-the hospital cardiac arrest patients."

The International Association of Fire Chiefs has endorsed the defibrillation concept and recommends that every fire suppression unit in the United States be equipped with automated external defibrillators. Communities have achieved nearly a 50% survival rate from out-of-hospital ventricular fibrillation by having available and using defibrillation.

Adding early defibrillation by first responders and EMTs before arrival of the ambulance may save many lives in the future.

Coincidentally, the day after listening to Dr. Cook, I happened to hear Dr. James Scott, Associate Professor of Emergency Medicine, George Washington University, School of Medicine, Washington, D.C., speaking on Audio-Digest Tape. He stated that Cardioversion is still essential in treating ventricular fibrillation, and it must be done early. A treatment regimen he describes is: if three shocks are unsuccessful, administer epinephrine; if heart rhythm is not restored after three shocks, chances for resuscitation are less than 10%; if not restored after epinephrine administration and fourth shock, chances for success are less than 1%.

Dr. Cook's presentation is forward looking and may be the basis for the saving of numerous lives in the future. As physicians, we must welcome change for the better. We must require documentation from those who proclaim success. We must learn from those who are successful. Let's forget medical economics and get on with the job we were trained to do. All health-care providers are Life Savers.

\* Ben N. Saltzman, M.D., is a retired family practitioner from Mountain Home, Arkansas.

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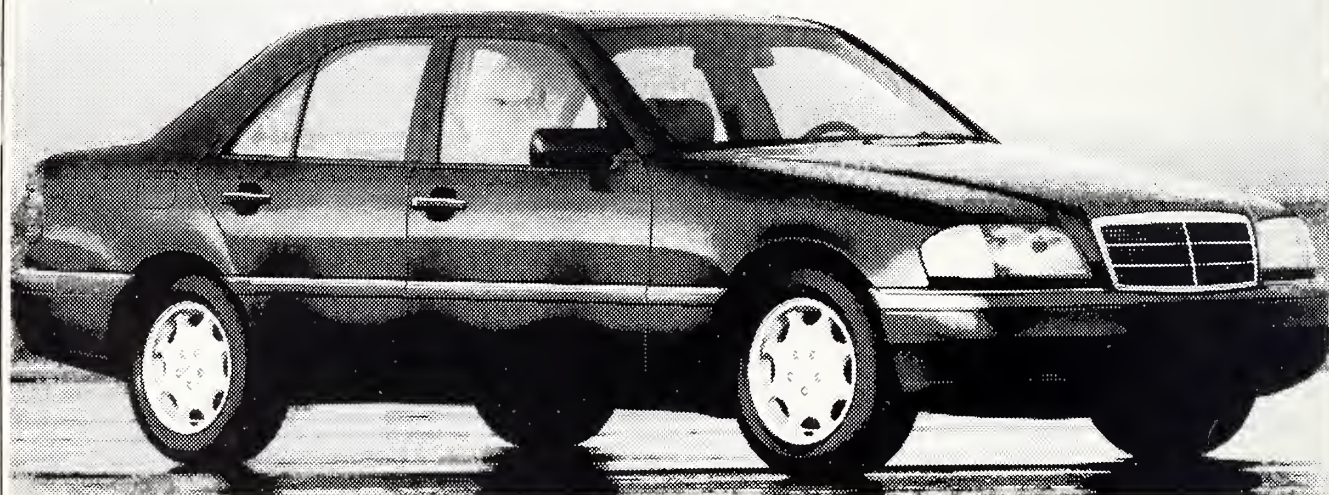
About the Cover: Black & white photo of the Hot Springs Rehabilitation Center - an area landmark with a history dating back to 1886 when it was an Army and Navy General Hospital - was provided by the Arkansas Department of Parks and Tourism. Color photos of the Hot Springs Mule Trolley, Arlington Hotel and "Mother Nature" fountain were taken by A.C. Haralson, Arkansas Department of Parks and Tourism.



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Cover photo by the Arkansas Department of Parks and Tourism.





# DO THE “WRITE” THING!

We are always looking for interesting and informative articles for *The Journal of the Arkansas Medical Society*. *The Journal* is a good way to pass an experience you have had or important information you have learned on to your fellow medical professionals. If you would like to consider being an author for *The Journal*, below is a list of topics our readers would be interested in. Or if you have another topic that you think would be of interest to your peers, please submit it for consideration.

- Enhancing the doctor-patient relationship
- Practice management for today's physicians
- Women's health issues
- Teens and drug use
- A smokeless society
- Medical ethics and health care
- What's the value of organized medicine?
- New treatments and technology
- Physicians and managed care
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- Medicare/Medicaid issues
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- How to market your practice
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- Coping with difficult patients

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Managing Editor

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*James M. Kolb, Jr., M.D.*

*1994-1995 President  
Arkansas Medical Society  
Russellville, Arkansas*







## Inaugural Address

James M. Kolb, Jr., M.D.  
President 1994-1995

Dr. Baker, honored guests, ladies and gentlemen, it is with a sense of deep humility and gratitude that I accept the office of President of this great institution - the Arkansas Medical Society.

As a senior medical student, I attended the installation in Fort Smith when my father became president of this organization. I had no idea that I would be honored in like manner by my fellow physicians some 35 years later.

My dad told me on several occasions that his father, a medical doctor, had instructed him to strive always to be a leader. Fortunately for me, my dad was an excellent role model.

As an entering freshman at the University of Arkansas, Fayetteville, I found that it was necessary to declare a major, that football was not a major, it simply wouldn't do. My late aunt Melba Garner Stockfeld, who worked for 47 years in the anatomy department at the University of Arkansas Medical School, introduced me to the cadavers in the anatomy lab at the age of two. She said that I would be a doctor some day.

Therefore, remembering her words, I signed on the "dotted line" for PREMED and have never regretted having done so! It was one of the thrills of my life the day I graduated, along with Dr. Glen Baker, when my dad, then President of the Medical Society, was given the opportunity by the President of the University of Arkansas, Dr. Caldwell, of handing me my diploma.

My mother was always very supportive of me and of my activities. She would have been very proud tonight. Reba died in 1983 having outlived my father.

For the past few days your convention, the 118th Annual Session of the Arkansas Medical Society, has followed the baseball theme, "The Bases Are Loaded."

All of us at least understand the game. Some of us

have actually played it. Today, the "House of Medicine" is in the most crucial game that we have ever "played". The stakes are high! We play "the game" for the sake of our patients and for our very survival to be physicians - for the very privilege of practicing medicine! I will describe for you the game and the situation.

I see the Arkansas Medical Society as a player at bat - all 3,600 members. In the dugout I see Ken LeMastus as general manager, Lynn Zeno and David Wroten as assistant managers, all coaching to the best of their ability. I see our fellow physicians who are not members of the Medical Society in the grandstands - spectators looking on, detached, unaware of their fate should we the Arkansas Medical Society fail to win the ballgame.

I see on third base a player named future membership. We must bring that player home to score! We need their talent, their voices, their numbers, for there is strength in numbers! A renewed effort must be put forth now to include every practicing physician in Arkansas in the Arkansas Medical Society.

Over on second base, look closely. That is the Arkansas Medical Society Managed Care organization, a new player. He is well around the bases, but we the Arkansas Medical Society must bring him home! It is up to all of us to do that. We must have a hit! A single to get that player home. That "player" is important. He will determine how we will practice medicine in the near future in Arkansas. He will give us an opportunity to "level the playing field". We can deliver quality care to our patients through managed care at a reasonable price for our patients and their employers. No physician will be excluded if he wishes to participate. I see Janell Mason coaching at third base. She will watch and direct the Managed Care organization around third





AMS 1994-1995 President James M. Kolb, Jr., M.D., and family.

base and on the home plate.

Before I tell you about the player at first base, I would like to point out the accomplishments of the Arkansas Medical Society and the programs that have been brought across "home plate" that are still part of our team.

In the dugout, you will find the Medical Education Foundation for Arkansas. This player was introduced to this Society by my dad in his presidential address.

The Arkansas Health Care Access Foundation - please let our President know that in his home state, Arkansas, we have a program for universal access!

The Arkansas Medical Society building. I want to thank the members of the limited partnership who made this project possible and who were called upon to bear such a financial burden.

The Physicians' Health Committee. Thanks for the fine job that you are doing, Dr. Martindale. This committee performs a very worthwhile service for the physicians of Arkansas.

Now look closely in the dugout. There are the Task Force on AIDS, thanks to Dr. Bill Jones; the Continuing Medical Education Accreditation Committee; Young Physicians Committee; Governmental Affairs Council; the Medical Services Review Committee; and the Position Papers Committee which was proposed by Dr. Kemal Kutait.

Now back to the player on first base, Health Care Delivery System Reform!

I commend the President and the First Lady for bringing this important problem to the attention of the American public. I agree. Universal coverage is desirable and reform is necessary. The present delivery system is burdened by cost shifting because the federal and state governments underfund Medicare and Medicaid forcing the private sector to pick up more than their share. Excessive health care demands have re-

sulted from drug and alcohol abuse, violent crime, tobacco use, sexual promiscuity, teenage pregnancy, premature births, AIDS, poor diet, lack of exercise. These are not unique to America, but these problems are much greater here than in any other country in the world. All of these escalate health care costs. A single segment of persons in our society, trial lawyers, all 250,000 of them, make and protect the laws which only benefit a small group to the detriment of the system.

*Forbes Magazine* listed over 50 individual trial attorneys, awarded in the multi-million dollar figure in 1988, awards that they collected and reported as personal income, not for their firms.

Heading the list, from Houston, Texas, Joseph Jamil with \$450 million in awards; an attorney from Claremont, California, \$40 million; an attorney from Wichita, Kansas noted for filing polio vaccine suits "earned" \$18 million; an attorney from Beaumont, Texas, \$14.5 million and so on.

Former American Medical Association president, Dr. Edward Annis, in his new book "Code Blue, Health Care In Crisis" states that the litigation and liability costs, direct and indirect, are estimated to be as high as \$300 billion per year. To put the cost in perspective the savings and loan "bail out" will cost a total of \$200 billion.

President Clinton says that the savings from tort reform would be insignificant. I beg to differ with him. These figures are significant. They represent a loss in the health care dollars - a loss that we can ill afford.

The cost of health care has risen out of proportion to other goods and services because of the very nature of third party reimbursement - somebody else paying for it! First dollar coverage! Benefit packages which cover goods and services out of the control of the medical doctor but delivered in the name of "health care". Insurance was meant to be for catastrophic events, not for every office visit, every injection and even every operation! The administrative costs of these low dollar transactions are "eating us up!" - both payors and providers.

More recently, insurance companies have rationed care through harassment of providers. By denying coverage for previous existing conditions and now, they are in the business of practicing medicine by setting up their own clinics and forming HMOs and other managed care entities. We, in medicine, are severely limited in our ability to deal with these large insurance companies because of anti-trust constraints.

Physicians are also unable to negotiate and self-regulate due to federal anti-trust regulations. Therefore, we must each of us swing with all of our might with laser accuracy so that this "player" - Health Care Delivery System Reform - can be brought home in a man-





*Mrs. Patricia Kolb with magician Andy Hickman.*

ner that will benefit our patients. We must have a double...a triple...a home run!

No one can fault the goals of the President's plan nor for the presentations that he and the First Lady repeatedly make. They are almost believable.

1. Security - universal coverage with a standard health benefit package;
2. Savings - global budgeting and insurance premium price caps;
3. Simplicity;
4. Choice - of health plans;
5. Quality;
6. Responsibility - employer and individual.

We must remember that his goal is to reduce the federal budget even if it is at the expense of our patients and their health care. A basic tenet of socialism is that the means of production, in this case health care, must be in the hands of the state. The President's plan is not new! The Russians created large bureaucracies and centralized planning commissions, not unlike the proposed seven person national health board to be appointed by the President and the more than 70 new boards and commissions with expansion of a similar number. Physicians are not allowed on this national health board which is to direct and manage 15% of the gross national product, larger than the Canadian government's annual budget.

The Clinton plan will not save money but will surely cost the American people one of the largest ever tax increases in the form of employer mandates. The general accounting office has confirmed this fact! There is no way that a centralized bureaucracy can deliver health care which is personalized to our patients. There will be no choice at all for you to select a physician unless your doctor happens to be in the same health alliance. Then you will probably have the opportunity to use him or her.

But, what about the rest of your family? The pediatrician? The gynecologist? What if they are not in the same health alliance?

The bill indicates that you may be able to go to your physician for an additional fee. Yet, the same plan reads that any person seeking medical services outside of the system will be charged as a criminal and subject to monetary fines. The same is true for the physicians. Is that what we really want for our health care system? I would say no! A resounding no!

There is no meaningful tort reform in the Health Security Act nor any anti-trust relief. There are mandates that force graduating medical students into residencies that may not be of their choice. The Health Security Bill will only succeed by delaying or denying care as the single payor system does in Canada, in Great Britain and other nations with socialized health systems.

In the bill, states are given the choice of going to single payor systems immediately. With such provisions should the Health Security Act become law, it would be inevitable that a single payor system would emerge!

The Health Security Act takes away the basic rights of freedom on which our nation is based, the freedom of choice and the pursuit of happiness are guaranteed in our constitution. The freedom of choice - for the patient to choose their own physician; freedom of a graduating medical student to choose his or her own career. The approach to health care delivery system reform



*AMS past presidents look on as Glen Baker, M.D., swears in James M. Kolb, Jr., M.D.*



*Andy Hickman convinces Charles "Shot" Rodgers, M.D., to put his head in the guillotine.*

should be handled in the American way - openly - not behind closed doors. Not through strong arm politics seeking a victory by a single vote. Health reform is too important! A wide consensus in both political parties should be developed before attempted passage of any health care reform. It will be complex by necessity to answer all of the needs of our heterogenous population.

Our Medical Society must score in a manner that gives us a voice to speak out in behalf of our patients. A choice for our patients to choose their own physicians and health insurance coverage. Cost should be constrained through competition, through meaningful professional liability reform not through global budgets, spending caps, or rationing of health care. Quality of care must remain unsurpassed!

If our team is to win we must play as one team. This has never been so true as it is today with medicine. Those in Washington, D.C. would play one group of physicians against another. In this particular case, primary care physicians against other specialties. The letters "D.C." - rather than meaning only the District of Columbia - have a new meaning, divide and conquer! Remember, a house divided cannot or will not stand. A team divided cannot win!

We must remind Congress and the President to make sure that the resources are there to accomplish health care coverage for all American citizens. This must be done before promising the Utopian goal! They should also follow, as we do, the precept in the "Oath of Hippocrates": First - do no harm!

The late speaker of the House of Representatives Tip O'Neal said, "All politics are local."

We the members of the Medical Society must with a Herculean effort reach out to our patients, our families, our clinic staff, our friends, our neighbors, the Kiwanis, the Lions, and the Rotary Clubs, the AARP, the Area Agency on Aging, to inform them on the is-

sues regarding health care delivery system reform and ask them to write their Congress person and senators. Tell them that it is necessary before any health plan be passed, that it must insure that every American has the freedom to choose their physician and that the physician and the patient have the right and the power to make medical decisions, not insurance clerks nor government administrators.

The time is short! It is the bottom of the 9th inning. The bases are loaded! And you, the Arkansas Medical Society, are at bat. We, as players in this all important game, must put forth the effort to influence the outcome of this game as we have never done before. Riding on the outcome is no less than our ability to continue to serve our patients to the best of our professional ability and judgement.

If you have not written your letter to your senators and Congress person asking them to co-sponsor the Hatch and Archer bills for anti-trust relief. Do so now. This is the first step to secure meaningful anti-trust reform. We all want to win! We can win! We can continue to have the best health care in Arkansas...in America...in the world!

You, the leaders of the Arkansas Medical Society and the Alliance, must work diligently to keep your eye on the ball and swing as hard as you can...GO FOR THAT HOME RUN!

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# 1994 Arkansas Medical Society Annual Session

	<b>Officers</b>	<b>First Session</b>	<b>Second Session</b>
Speaker	John Crenshaw	present	present
Vice Speaker	Brenda Powell	present	present
President	Glen F. Baker	present	present
President-elect	James M. Kolb, Jr.	present	present
Vice President	Gary L. Beville	-	-
Secretary	Charles Rodgers	present	present
Treasurer	Lloyd Langston	present	present
<b>Councilors</b>			
District 1	Dwight Williams	present	present
	Don B. Vollman	present	present
District 2	Michael Moody	present	present
	Lloyd Bess	-	present
District 3	Hoy Speer	-	-
	P. Vasudevan	present	present
District 4	Anna T. Ridling	present	present
	Paul Wallick	-	present
District 5	Wayne Elliott	-	present
	Robert Nunnally	present	present
District 6	James Armstrong	present	present
	John A. Gillea	-	-
District 7	Robert McCrary	-	present
	Thomas Hollis	-	-
District 8	David Barclay	present	present
	Joseph Beck	-	present
	Paul Cornell	present	present
	William Jones	present	present
	Charles Logan	present	present
	R. Jerry Mann	present	present
	J. Mayne Parker	present	present
	Harold Purdy	present	present
District 9	Robert Langston	present	present
	David Rogers	present	present
	Janet Titus	present	present

	<b>Councilors</b>	<b>First Session</b>	<b>Second Session</b>
District 10	Gerald Stolz	-	present
	Paul Wills	-	-
	Morton C. Wilson	present	present
<b>Past Presidents</b>			
1979-1980	A. E. Andrews	present	-
1971-1972	C. Stanley Applegate	-	-
1985-1986	John P. Burge	present	present
1983-1984	Asa A. Crow	present	-
1964-1965	C. Randolph Ellis	present	-
1969-1970	Ross E. Fowler	-	-
1951-1952	Charles R. Henry, Sr.	-	-
1982-1983	Morris M. Henry	present	present
1988-1989	John M. Hestir	present	present
1990-1991	William N. Jones	present	present
1987-1988	W. Ray Jouett	present	present
1976-1977	Albert S. Koenig, Jr.	-	-
1977-1978	W. Payton Kolb	present	present
1980-1981	Kemal E. Kutait	-	-
1986-1987	Ken Lilly	-	-
1967-1968	Joseph A. Norton	-	-
1974-1975	Ben N. Saltzman	present	present
1981-1982	Purcell Smith, Jr.	-	-
1968-1969	H. W. Thomas	-	-
1975-1976	T. E. Townsend	-	-
1963-1964	Joe Verser	-	-
1991-1992	George Warren	-	-
1972-1973	C. Robert Watson	-	-
1989-1990	James R. Weber	present	present
1984-1985	Charles F. Wilkins, Jr.	-	-
1973-1974	John P. Wood	-	-
1978-1979	George F. Wynne	-	-

## House of Delegates Composition

	<b>Delegates</b>	<b>First Session</b>	<b>Second Session</b>
Arkansas (1)	NOT REPRESENTED	-	-
Ashley (1)	Barry Thompson	present	present
Baxter (2)	Robert Baker	present	present
Benton (4)	NOT REPRESENTED	-	-
Boone (1)	Carlton Chambers	present	-
	James Crider	-	present
Bradley (1)	Joe Wharton	present	present
Carroll (1)	Oliver Wallace	present	present
Chicot (1)	NOT REPRESENTED	-	-
Clark (1)	Noland H. Hagood	-	-
Cleburne (1)	G. Lee Vaughn	-	-
Columbia (1)	John Alexander, Jr.	-	-
Conway (1)	NOT REPRESENTED	-	-
Craighead/ Poinsett (6)	Tim Dow	present	present
	David Pyle	-	present
	David Silas	-	-
	Joe Stallings	present	present
	Don Vollman	present	present
	Joe Wilson	present	present

	<b>Delegates</b>	<b>First Session</b>	<b>Second Session</b>
Crawford (1)	NOT REPRESENTED	-	-
Crittenden (1)	Scott Ferguson	-	-
Cross (1)	NOT REPRESENTED	-	-
Dallas (1)	Don Howard	-	-
Desha (1)	NOT REPRESENTED	-	-
Drew (1)	Harold Wilson	present	-
Faulkner (2)	Randal Bowlin	-	present
	Ben Dodge	-	-
Franklin (1)	David Gibbons	present	present
Garland (6)	James Arthur	-	-
	Mike Finan	present	present
Grant (1)	Jack Irvin	-	-
Greene/Clay (1)	Roger Cagle	present	present
Hempstead (1)	Lowell Harris	-	-
Hot Spring (1)	Absalom Tilley	present	present
Howard/Pike (1)	NOT REPRESENTED	-	-
Independence (2)	William Waldrip	present	present
	J. R. Baker	present	present

# House of Delegates Composition (cont'd)

	Delegates	First Session	Second Session
Jackson (1)	M. A. Chauhan	-	present
Jefferson (4)	Simmie Armstrong	-	-
	Sue Frigon	-	-
	David Jacks	present	present
	John Lytle	-	present
Johnson (1)	Richard McKelvey	-	-
Lafayette (1)	Sanford Hutson	present	-
Lawrence (1)	Robert Quevillion	present	present
Lee (1)	Duong Ly	-	-
Little River (1)	James Armstrong	present	-
Logan (1)	John R. Williams	-	-
Lonoke (1)	Les Anderson	-	-
Miller (3)	Stanley Collins	-	-
	Joseph R. Robbins	present	present
	Herbert B. Wren	-	-
Mississippi (1)	Joe V. Jones	present	present
Monroe (1)	NOTREPRESENTED	-	-
Nevada (1)	NOTREPRESENTED	-	-
Ouachita (1)	William Dedman	-	-
Phillips (1)	P. Vasudevan	-	-
Polk (1)	David Fried	present	present
Pope (2)	David Murphy	present	present
Pulaski (32)	D. B. Allen	-	-
	Raymond Biondo	present	-
	Amail Chudy	present	present
	Bob E. Cogburn	-	-
	Michael Cope	-	-
	David Coussens	present	present
	Phillip Deer, III	-	-
	Kurt Dilday	present	-
	Marlon Doucet	-	-
	Jim English	present	present
	Charles P. Fitzgerald	-	-
	A. T. Gillespie	-	-
	Edwin Hankins, III	-	-
	Fred O. Henker	-	-
	C. Reid Henry	-	-
	Stephen Hodges	-	-
	Tom Jansen	-	-
	Anthony D. Johnson	present	-
	Carl L. Johnson	-	-
	Gail Jones	-	-
	David King	-	-
	Marvin Leibovich	present	-
	Judy McDonald	-	-
	Fred G. Nagel	-	-
	George A. Norton	-	-
	Debra Owings	-	-
	Carl J. Raque	present	present
	John F. Redman	present	present
	Ashley S. Ross	present	present
	Ted Saer	-	-
	Bruce E. Schratz	-	-
	Frank M. Sipes	present	present
	William L. Steele	present	present
	Duane Velez	present	present
	Samuel Welch	-	-
	John L. Wilson	present	present
	Paul W. Zelnick	-	-
Randolph (1)	NOTREPRESENTED	-	-
Saline (2)	Michael J. Schmidt	-	present

	Delegates	First Session	Second Session
Sebastian (11)	Paul Anderson	-	-
	Mike Berumen	-	-
	Randy Ennen	-	-
	R. Cole Goodman	-	-
	Peter Irwin	present	-
	John Lang	-	-
	Jack Magness	-	-
	William Schemel	-	-
	Eugene Still	-	-
	John Swicegood	-	-
	John Wells	-	-
	John H. Wikman	-	present
Sevier (1)	NOTREPRESENTED	-	-
St. Francis (1)	NOTREPRESENTED	-	-
Tri-County (1)	Griffin Arnold	-	present
Union (2)	Robert Tommey	-	present
Van Buren (1)	John A. Hall	-	-
Washington (7)	Curtis Hedberg	present	present
	Anthony Hui	-	present
	William McGowan	-	-
	Robert Pang	-	-
	Danny Proffitt	present	present
	David Rogers	present	present
	Janet Titus	present	present
White (2)	John Bell	present	-
	Jim City	-	-
	Dan Davidson	present	-
Woodruff (1)	NOTREPRESENTED	-	-
Yell (1)	James Maupin	-	-
Medical			
Student (1)	Sherlita Reeves	present	-
Resident (1)	NOTREPRESENTED	-	-



# 1994 Annual Session Speakers

## Keynote Address

**Michael F. Staley**, an award-winning fire fighter who was injured when a race car careened out of control at the Daytona International Speedway, was the keynote speaker at the opening session, Thursday, April 7. Using video segments from his story as it was covered on Rescue 911, he presented "Ten Things Your Patients Never Told You."

## 1st Feature Session

**Alice G. Gosfield, J.D.**, addressed current issues with "Coping with the New Managed Care Paradigm," at the First Feature Session on Friday, April 8. She discussed the structure of medical practice in the managed care environment.

## Shuffield Lecture

**Mark V. Pauly, Ph.D.**, Director of Research and Senior Fellow at the Leonard Davis Institute of Health Economics, gave his address, "The Challenges in Health Care Reform," at the Shuffield Luncheon on Friday, April 8. He covered some of the misconceptions and hard realities surrounding health care reform.

## 2nd Feature Session

**William D. McInturff**, co-founder of Public Opinion Strategies, one of Washington's most respected survey and research strategy organizations, presented "Trends and Prospectives on National Health Care Reform," on Friday, April 8. He specializes in tracking current trends in both the public and legislative prospectives of health care reform.

## 3rd Feature Session

**Robert R. Redfield, M.D.**, of the Department of Retroviral Research at Walter Reed Army Institute of Research in Rockville, Maryland, spoke at the 6th AMS AIDS Seminar on Saturday, April 9. He was among those who first reported on the detection, isolation and characterization of HIV-1.

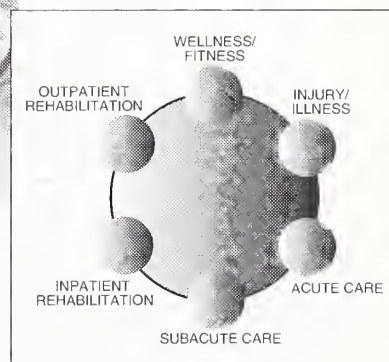




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# House of Delegates

First Session - April 7, 1994

Vice Speaker of the House Brenda Powell called the meeting to order on Thursday, April 7, 1994, at the 118th annual meeting of the Arkansas Medical Society. Dr. Payton Kolb asked for a moment of silence in memory of the physicians and spouses that had passed away in the past year and gave the invocation. The Arkansas National Guard presented the colors.

Dr. Powell introduced the following alliance members and guests: Mrs. Darlene Young, Secretary, American Medical Association Alliance; Mrs. Jo Ann Daus, President-elect, Southern Medical Association Auxiliary; Mrs. Arleta Power, President, Arkansas Medical Society Alliance; and Mrs. Mary Ann Stallings, President-elect, Arkansas Medical Society Alliance.

Mrs. Arleta Power, President of the Arkansas Medical Society Alliance, presented Dr. I. Dodd Wilson, Dean of the University of Arkansas College of Medicine, with two checks from the American Medical Association Education and Research Foundation. The first check in the amount of \$3,006.50 was for pursuit of excellence in the medical school's program and the other check in the amount of \$18,435.39 is restricted to the school's program of financial assistance for medical students.

Dr. Powell announced there were 79 voting members in attendance.

Upon motion, the House approved the minutes of the 117th annual session as published in the June 1993 issue of *The Journal of the Arkansas Medical Society*.

Dr. William Jones introduced Dr. Donald T. Lewers, AMA Board of Trustees, who addressed the House. Dr. Lewers also presented an award to Dr. Glen Baker on behalf of the Arkansas Medical Society for exceeding its AMA membership goal for the third consecutive prior year. He also presented Dr. Baker with a check in the amount of \$9,022.00.



Vice Speaker of the House Brenda Powell, M.D.



Donald T. Lewers, M.D., AMA Board of Trustees, addressed the House of Delegates during the First Session.

Dr. Charles Logan made presentations to Drs. James Armstrong, Ronald Bracken, and Harold Purdy for their service on the Council.

Dr. Glen Baker presented an award to Dr. Payton Kolb for his service as a delegate to the American Medical Association and to Dr. Harold Hedges for his service to the Arkansas Health Care Access Foundation.

Dr. Powell announced the following vacancies on the state boards and reminded the members in the counties in the districts to meet immediately following the adjournment of the House to vote for three nominees for each vacancy. Vacancies will occur December 31, 1994, in the old Fifth Congressional District position of the Arkansas State Medical Board and in the Second and Fourth Congressional District positions of the Arkansas State Board of Health.

Dr. Powell announced the 1994-1995 Nominating Committee members: District #1: Dr. Merrill Osborne, Blytheville; District #2: Dr. Daniel Davidson, Searcy; District #3: Dr. Francis Patton, Helena; District #4: Dr. Harold Wilson, Monticello; District #5: Dr. Robert Nunnally, Camden; District #6: Dr. John Gillean, Texarkana; District #7: Dr. Thomas H. Hollis, Hot Springs; District #8: Dr. Harold Purdy, Little Rock; District #9: Dr. Carlton Chambers, Harrison; and District #10: Dr. Gerald Stolz, Russellville.

Dr. Powell reminded the House of the reference committee meetings to be held Friday, April 8th.

The keynote speaker, Mike Staley, presented "Ten Things Your Patients Never Told You". Mike's story of being injured when a race car careened out of control at the Daytona International Speedway was very interesting.

After announcements the meeting adjourned until Saturday, April 9th.



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# House of Delegates

Final Session - April 9, 1994

Speaker of the House John Crenshaw called the meeting to order on Saturday, April 9, 1994, and asked the Nominating Committee Chairman, Dr. Mike Moody, to present the slate of officers:

**President-elect:**

James Armstrong, M.D., Ashdown

**Vice President:**

Scott Dinehart, M.D., Little Rock

**Treasurer:**

Lloyd Langston, M.D., Pine Bluff

**Secretary:**

Charles Rodgers, M.D., Little Rock

**Speaker of the House:**

John Crenshaw, M.D., Pine Bluff

**Vice Speaker of the House:**

Brenda Powell, M.D., Hot Springs

**Delegates to the AMA:**

John Burge, M.D., Lake Village  
(1/1/95 - 12/31/96)

William Jones, M.D., Little Rock  
(1/1/95 - 12/31/96)

**Alternate Delegate to the AMA:**

David Rogers, M.D., Fayetteville  
(1/1/95 - 12/31/96)

John Hestir, M.D., DeWitt  
(1/1/95 - 12/31/96)

**Councilors:**

- District 1: Dwight Williams, M.D., Paragould  
District 2: Michael Moody, M.D., Salem  
District 3: Parthasarathy Vasudevan, M.D., Helena  
District 4: Paul Wallick, M.D., Monticello  
District 5: Robert Nunnally, M.D., Camden  
District 6: George Finley, M.D., Texarkana  
District 7: Robert F. McCrary, Jr., M.D., Hot Springs  
District 8: David Barclay, M.D., Little Rock  
Jerry Mann, M.D., Little Rock  
John L. Wilson, M.D., Little Rock  
District 9: Robert Langston, M.D., Harrison  
Janet Titus, M.D., Winslow  
District 10: Morton Wilson, M.D., Fort Smith  
Gerald Stolz, M.D., Russellville

Dr. James Armstrong was elected president-elect by acclamation as were other nominees. Dr. Armstrong addressed the House.

Dr. Crenshaw announced there were 82 voting members in attendance.

The next order of business was the reports from the reference committees. The adoption of these re-



*Speaker of the House John Crenshaw, M.D.*

ports were approved.

The report of the Council was given by Dr. Charles Logan, Chairman, and approved by the House to be filed for information.

Dr. Crenshaw announced the following nominees for the state board positions: Second Congressional District, Arkansas State Board of Health: Kenneth R. Meacham, M.D., and John E. Bell, M.D., both of Searcy, and Lloyd G. Bess, M.D., Batesville; Fourth Congressional District, Arkansas State Board of Health: Raymond N. Bowman, M.D., and Robert C. Tommey, M.D., both of El Dorado, and Joe Wharton, M.D., Warren; and Fifth Congressional District, Arkansas State Medical Board: Warren M. Douglas, M.D., Little Rock; Robert A. Bell, Russellville, and J. Curtis Dilday, Little Rock.

Dr. Glen Baker, 1993-94 AMS President, gave a farewell address to the delegates, members, and guests. Ms. Janell Mason, Chief Operating Officer of the AMS Management Company, gave an update on the managed care program being developed for AMS members.

Dr. Lloyd Langston presented a resolution congratulating the Arkansas Razorback Basketball Team for the 1994 National Championship. Upon motion the House approved the resolution to be sent to the players, coaches, and staff of the University of Arkansas Basketball Razorbacks.

Mrs. Peyton Bishop, AMS Alliance Legislation Chairman, addressed the House and urged physicians and spouses to make contributions to MED-PAC. Dr. Charles Rodgers reported only 10% of the AMS members had contributed.

Speaker Crenshaw recognized Dr. James Weber, President of the American Academy of Family Physicians.

There being no further business the meeting adjourned.

**Resolution Congratulating the  
Arkansas Razorback Basketball Team**

**WHEREAS**, the University of Arkansas Razorback Basketball Team has won the 1994 National Championship; and

**WHEREAS**, this accomplishment has brought honor to the state, the University, and the team; and

**WHEREAS**, the coaches, staff, and players have acted as ambassadors to goodwill and have honorably represented Arkansas; therefore be it

**RESOLVED**, that the Arkansas Medical Society recognizes these great accomplishments and congratulates the players, coaches, and staff of the University of Arkansas Basketball Razorbacks.



*Right top: Members of the Executive Committee.  
Right: James Armstrong, M.D., being escorted to give his acceptance speech.*



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James Armstrong, Ashdown, President-elect  
Scott Dinehart, Little Rock, Vice President  
Glen F. Baker, Little Rock, Immediate Past President  
Charles Logan, Little Rock, Chairman of the Council  
Charles Rodgers, Little Rock, Secretary  
Lloyd Langston, Pine Bluff, Treasurer  
John Crenshaw, Pine Bluff, Speaker of the House  
Brenda Powell, Hot Springs, Vice Speaker of the House

### **EXECUTIVE COMMITTEE**

Charles Logan, Little Rock, Chairman of the Council  
James M. Kolb, Jr., Russellville, President  
James Armstrong, Ashdown, President-elect  
Charles Rodgers, Little Rock, Secretary  
Lloyd Langston, Pine Bluff, Treasurer  
Glen F. Baker, Little Rock, Immediate Past President

### **COUNCILORS AND COUNCILOR DISTRICTS**

#### **FIRST DISTRICT**

Don B. Vollman, Jonesboro (1995); Dwight Williams, Paragould (1996); Clay, Craighead, Crittenden, Greene, Lawrence, Mississippi, Poinsett, Randolph

#### **SECOND DISTRICT**

Lloyd Bess, Batesville (1995); Michael Moody, Salem (1996); Cleburne, Conway, Faulkner, Fulton, Independence, Izard, Jackson, Sharp, Stone, White

#### **THIRD DISTRICT**

Hoy Speer, Stuttgart (1995); P. Vasudevan, Helena (1996); Arkansas, Cross, Lee, Lonoke, Monroe, Phillips, Prairie, St. Francis, Woodruff

#### **FOURTH DISTRICT**

Anna T. Ridling, Pine Bluff (1995); Paul Wallick, Monticello (1996); Ashley, Chicot, Desha, Drew, Jefferson, Lincoln

#### **FIFTH DISTRICT**

Wayne Elliott, El Dorado (1995); Robert Nunnally, Camden (1996); Bradley, Calhoun, Cleveland, Columbia, Dallas, Ouachita, Union

#### **SIXTH DISTRICT**

John A. Gillean, Texarkana (1995); George Finley, Texarkana (1996); Hempstead, Howard, Lafayette, Little River, Miller, Nevada, Pike, Polk, Sevier

#### **SEVENTH DISTRICT**

Thomas Hollis, Hot Springs (1995); Robert McCrary, Hot Springs (1996); Clark, Garland, Grant, Hot Spring, Montgomery, Saline

#### **EIGHTH DISTRICT**

David Barclay, Little Rock (1995); R. Jerry Mann, Little Rock (1995); Harold Purdy, Little Rock (1995); Joseph Beck, Little Rock (1996); Paul Cornell, Little Rock (1996); William Jones, Little Rock (1996); Charles Logan, Little Rock (1996); J. Mayne Parker, Little Rock (1996); Pulaski

#### **NINTH DISTRICT**

Robert Langston, Harrison (1995); Janet Titus, Winslow (1996); David Rogers, Fayetteville (1996); Baxter, Benton, Boone, Carroll, Madison, Marion, Newton, Searcy, Van Buren, Washington

#### **TENTH DISTRICT**

Morton C. Wilson, Fort Smith (1995); Gerald Stolz, Russellville (1995); Paul Wills, Fort Smith (1996); Crawford, Franklin, Johnson, Logan, Perry, Pope, Scott, Sebastian, Yell

## Reference Committee #1



Dr. Roger Cagle, Paragould, Chairman  
Dr. John Ashley, Newport  
Dr. Kurt Dilday, Little Rock  
Dr. Sue Frigon, Pine Bluff  
Dr. P. Vasudevan, Helena  
Dr. Joe T. Wilson, Jr., Jonesboro  
Steve Osmon, Medical Student Representative

This Reference Committee recommends that the following reports printed in the March issue of *The Journal of the Arkansas Medical Society* be filed for information:

**Annual Session Committee**, Dr. Jerry Mann, Chairman  
**Arkansas Health Care Access Foundation**, Dr. Harold Hedges, Chairman  
**Arkansas State Medical Board**, Ms. Peggy Pryor Cryer, Executive Secretary  
**Ouachita County Medical Society**, Dr. Robert Nunnally, Secretary/Treasurer  
**Pulaski County Medical Society**, Mr. Fred Reddoch, Executive Director  
**Report of the Council**, Dr. Charles Logan, Chairman  
**Task Force on AIDS**, Dr. Joseph Beck, Chairman  
**Tenth Councilor District**, Drs. Morton Wilson, Gerald Stolz, and Paul Wills, Councilors  
**Young Physicians' Committee**, Dr. Anna Ridling, Chairman

HOUSE ACTION: FILED FOR INFORMATION

## Report of the Physicians' Health Committee Dr. Joe Martindale, Chairman

This reference committee heard testimony from Dr. Donald Lewers of the AMA Board of Trustees concerning a new program developed by the AMA. The AMA has created the Physicians Health Foundation to support state programs related to alcohol, drug rehabilitation, family counseling, and retraining for physicians. Funding will come primarily from major business corporations and the physician community. Monies that are raised in each state will remain within those states to support new or existing programs.

This reference committee recommends that the report of the Physicians' Health Committee be filed for information, AND THAT

The AMA be commended for developing the Physicians Health Foundation, AND THAT

The Arkansas Medical Society contact the AMA to obtain information on this program for the purposes of financially supporting our Physicians' Health Committee, AND THAT

The Physicians' Health Committee inform the physicians of Arkansas about the benefits and confidentiality of seeking assistance through this committee before their problem becomes a matter of consideration by the licensing authority.

HOUSE ACTION: FILED FOR INFORMATION





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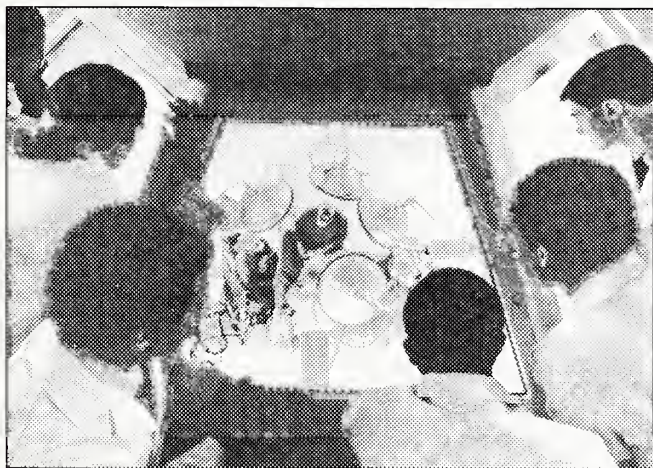
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## Reference Committee #2



Dr. Joe Jones, Blytheville, Chairman  
Dr. Mark Gibbs, Little Rock  
Dr. Carole Jackson, Conway  
Dr. Victor Chu, Resident Section Representative  
Brad Johnson, Medical Student Representative

This Reference Committee recommends that the following reports printed in the March issue of *The Journal of the Arkansas Medical Society* be filed for information:

**Budget Committee**, Dr. Paul Wallick, Chairman  
**CME Accreditation Committee**, Dr. Walter O'Neal, Chairman  
**Medical Education Foundation for Arkansas**, Dr. Martin Eisele, Chairman  
**Medical Services Review Committee**, Dr. John Crenshaw, Chairman  
**Pension Plan Trustees**, Dr. William Rutledge, Chairman  
**Report of the Executive Vice President**, Mr. Ken LaMastus, CAE  
**Report of the Arkansas Department of Health to the Arkansas Medical Society**, Mr. Tom Butler, Deputy Director of Administration

HOUSE ACTION: FILED FOR INFORMATION

**Governmental Affairs Council Report**  
Dr. Charles H. Rodgers, Chairman

This Reference Committee wishes to emphasize the need for all Arkansas Medical Society members to become active PAC members.

This Reference Committee recommends that this report be filed for information and that Mr. Lynn Zeno, AMS Director of Governmental Affairs, Dr. Charles Rodgers, and the other members of the Governmental Affairs Council be commended.

HOUSE ACTION: FILED FOR INFORMATION

**Managed Care Committee Report**  
Dr. Glen F. Baker, Chairman

This Reference Committee wishes to emphasize that the 1400-plus paid members of the AMS managed care program represent a majority of the practicing physicians in the state.

This Reference Committee recommends that this report be filed for information and that Dr. Glen F. Baker and his entire committee be commended.

HOUSE ACTION: FILED FOR INFORMATION



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## Report of the Council

April 7-8, 1994

The Council met April 7-8, 1994 and the following business was received and transacted:

1. Approved the minutes of the February 20, 1994 Council meeting with the following corrections:

#7: change the amount from \$600,000 to \$400,000

#7 should read: Dr. William Jones and Dr. David Bourne, of the Arkansas Department of Health, discussed matching grants for smoke free states available through the Robert Wood Johnson Foundation. CHAR and Arkansans for Drug Free Youth have applied for a \$1.2 million matching grant (\$400,000 from the state of Arkansas for a four-year grant). Upon motion the Council voted to go on record supporting this program and pledge financial support based on recommendations from the Budget Committee.

#9 should read: Dr. Crenshaw presented the revised Duties and Responsibilities of the Medical Services Review Committee. Upon motion the Council voted to amend section IX to read as follows: "A change in the modes of practice, policy, or other circumstances that require additional responsibilities for the MSRC may be established only by the AMS Council".

2. Approved the minutes of the March 23, 1994 Executive Committee meeting.
3. Dr. David Bourne from the Arkansas Department of Health discussed Rules and Regulations Pertaining to the Arkansas Cancer Registry. This summer the Health Department will go before an interim committee of the state legislature and ask for approval of the Board of Health regulations that will make cancer a reportable disease. Upon motion the Council voted to support the cancer registry.
4. Dr. Donald Lewers, AMA Board of Trustees, greeted the Council and gave an update on the AMA's perspective on health care reform.
5. Dr. Glen Baker reported on the Governor's Task Force on Health Care Reform.
6. Dr. Lloyd Langston reported on the activities of the Health Resources Commission.

7. A report on the Physicians' Advisory Committee to Medicare was presented for information.
8. Dr. Kevin Kenny, Medical Director of the Arkansas Foundation for Medical Care, was introduced and spoke briefly to the Council.
9. The following appointments was made to the AMS Management Company Board of Directors: Annette S. Kline, Strong Systems, Inc., Pine Bluff; William R. Austin, Central Moloney, Inc., Pine Bluff; Sam Thompson, Automatic Vending of Arkansas, Inc., Pine Bluff; and Chris Long, Florida Drum, Pine Bluff. Council approval is required by the management corporation's bylaws.
10. The AMS Membership and Budget Reports for the period ending February 28, 1994, was submitted for information.
11. The 1993 MEFFA and AMS Audits were received for information.
12. Dr. Morton Wilson, Chairman of the Budget Committee, reported the Robert Wood Johnson Foundation grant was not approved for funds for Smoke Free Arkansas. Upon motion the Council voted to go on record supporting an ordinance for "Smoke Free Little Rock" for the regulation of tobacco use in public places.
13. The Council approved the following dates for future AMS conventions:  
  
2000: May 4 - 6, Arlington Hotel, Hot Springs  
2001: May 3 - 5, Arlington Hotel, Hot Springs  
2002: May 2 - 4, Excelsior Hotel, Little Rock  
2003: May 1 - 3, Arlington Hotel, Hot Springs  
2004: April 29 - May 1, Excelsior Hotel, Little Rock
14. Dr. John Crenshaw gave an update on the Medical Services Review Committee stating there had been no meetings in the past few months.
15. The Council approved the following physicians for dues exemption for life, emeritus, and affiliate memberships:

### Life Membership:

Guy W. Heder	R. F. Rhodes
Robert L. Baker	Warren M. Douglas
George F. Wynne	W. Payton Kolb
Thomas H. Hickey	Walter G. Selakovich
D. M. Hechanova, Jr.	F. Paul Hogue
Thomas E. Townsend	Bernard C. Smith





*The Council of the Arkansas Medical Society.*

#### Committee on Position Papers:

Raymond Bowman, El Dorado  
Janet Titus, Winslow  
Ladd Scriber, Jonesboro

#### Young Physicians Committee:

District 3: L. J. Patrick Bell, II, Helena  
District 4: Anna Ridling, Pine Bluff  
District 5: Gary Beville, El Dorado  
District 6: vacant

#### AMS Benefits Committee:

James Kolb, Russellville, orthopaedic surgeon  
John Cox, Hot Springs, clinic manager  
Kurtis Vinsant, Little Rock, general surgeon

#### Journal Editorial Board:

David Barclay, Little Rock  
John Olson, Fort Smith

#### Medical Services Review Committee:

Family Practice: Michael Young, Prescott and  
Geoffrey Goldsmith, Little Rock  
General Surgery: Charles Mabry, Pine Bluff  
Anesthesiology: H. Jerrel Fontenot, Little Rock  
Neurosurgery: David L. Reding, Little Rock  
Urology: David Lupo, Pine Bluff

#### Physicians' Advisory Committee to Medicare:

Anesthesiology: H. Jerrel Fontenot, Little Rock  
Cardiovascular Diseases: William Fiser, Little Rock and  
John B. Weiss, Springdale  
Doctor of Osteopathy: Kenneth Heiles, Star City

Gastroenterology: John Baber, Little Rock  
Neurology: Jan Sullivan, Little Rock  
Neurosurgery: David Reding, Little Rock  
Ophthalmology: Richard Henry, North Little Rock  
Oral Surgery: Robert Anderson, Little Rock  
Psychiatry: Max Baker, Fort Smith  
Plastic Surgery: Luther Walley, Hot Springs  
Pulmonary Diseases: Gail McCracken, Little Rock  
Rheumatology: Thomas Kovalski, Little Rock  
Urology: David Lupo, Pine Bluff

19. Upon motion the Council voted to synchronize the terms for MSRC and Physician Health Committee members to rotate off those committees at the same time.

20. Dr. James Kolb urged everyone to make their contributions to MED-PAC. It was suggested that the next AMS Newsletter include a reminder to pay MED-PAC with a personal check.

#### **Emeritus Membership:**

Paul H. Millar, Jr.	Harold B. Hawley
Richard N. Pearson	G. Thomas Jansen
William J. Weaver	John McCracken
Ronald J. Bracken	George K. Mitchell
Russell W. Cobb	Richard H. Sundermann
C. Clyde Tracy	Douglas E. Young
Jerry C. Chapman	Samuel L. Cornwell
Neylon C. David, Jr.	Charles H. Floyd
Cal R. Sanders	Norman F. Westermann
Joe B. Crumpler, Jr.	William R. Scurlock
E. Jane Mauch	George W. Warren
Frank G. Edmiston	John R. Power

#### **Affiliate Membership:**

Helga E. Chock	Raines Chin
John W. Jacks	Guy R. Farris, Jr.
Patrick K. Keane	George M. Goza, Jr.
Gary S. Sapiro	J. Harry Hayes, Jr.
Robert E. Burns	Ben O. Price
William R. Mashburn	E. Clinton Texter, Jr.
Norman W. Peacock, Jr.	Joseph H. McAlister
William J. Roberts	Vincent B. Runnels
Donald G. Browning	Dabney Brannon

16. Dr. Logan presented for information maps of the old congressional districts, the new congressional districts, and the AMS councilor districts.

17. Dr. Glen Baker gave an update on the AMS Management Company.

18. The Council made the following appointments:

#### Budget Committee:

Robert Nunnally, Camden

#### Pension Plan Board of Trustees:

Anna Ridling, Pine Bluff

**Addendum to the  
Report of the Council  
April 7-8, 1994**

The Council met for a brief organizational meeting on April 9, 1994, following the AMS House of Delegates. The following business was received and transacted:

1. Approved a resolution supporting the Arkansas Soft Drink Tax.
2. Reappointed Dr. Charles Logan as chairman of the Council for 1994-95.
3. Approved the following appointments to the Medical Services Review Committee:  
Griffin Arnold, M.D., Salem - internal medicine  
Joe Stallings, M.D., Jonesboro - vice chairman

There being no further business the meeting adjourned.



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**Resolution Supporting the Arkansas  
Soft Drink Tax**

**WHEREAS** the Arkansas Soft Drink Tax is levied on a non-essential item;

**WHEREAS** the Arkansas Soft Drink Tax is 30% of the overall revenue plan adopted in the 1992 special session to alleviate a crisis situation in Arkansas' Medicaid program;

**WHEREAS** the money raised by the Arkansas Soft Drink Tax helped to prevent the elimination of medical services to 90,000 of Arkansas' elderly, poor, children, and disabled;

**WHEREAS** the widespread consumption of soft drinks means everyone who drinks cola in Arkansas, including tourists, contributes to the health of our Medicaid system in small, non-burdening amounts;

**WHEREAS** the Arkansas Soft Drink Tax generates \$30+ million dollars in needed matching funds to provide medical services to the elderly, the poor, children, and the disabled;

**WHEREAS** the Arkansas Soft Drink Tax generates an additional \$90+ million dollars in federal funds to provide medical services to the elderly, the poor, children, and the disabled;

**WHEREAS** the Arkansas Soft Drink Tax is credited to the Arkansas Medicaid Program Trust Fund;

**WHEREAS** the repeal of the Arkansas Soft Drink Tax would have a deleterious effect on general revenues in Arkansas which fund other essential state services;

**NOW THEREFORE, BE IT HEREBY RESOLVED** that the members of the Arkansas Medical Society support the ARKANSAS SOFT DRINK TAX and pledge their support in the effort to prevent the repeal of this existing tax.





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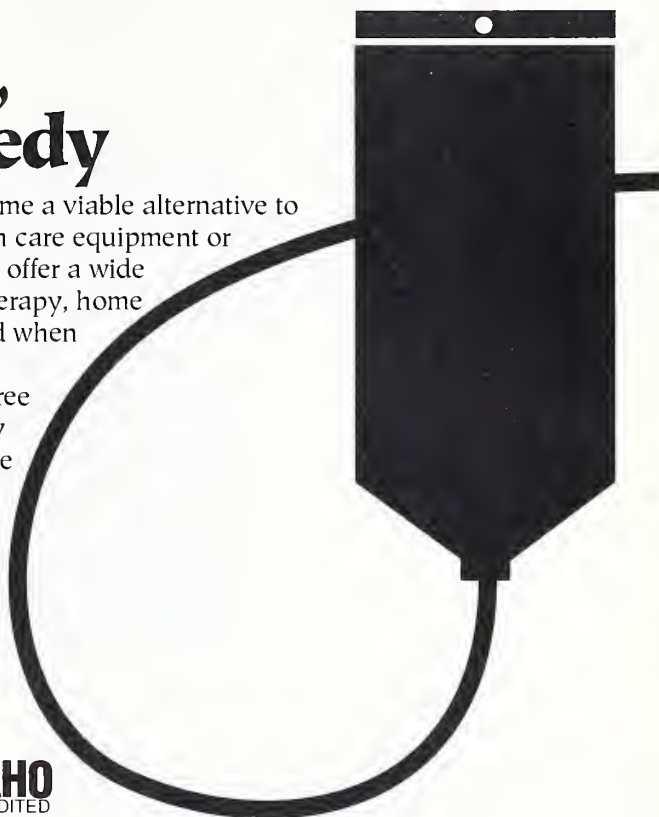


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# AMS, A Business: Your Business

Address by Glen F. Baker, M.D.  
1993-1994 President



I have come to realize, over this past year, that the Arkansas Medical Society is much more than a fraternal organization of Arkansas physicians. It may have been at one time, but is no more.

I would like to share with you my impression and understanding of the Arkansas Medical Society, what it represents, and plead with you to become a critical, informed and productive worker for this evolving new organization.

The Arkansas Medical Society is a business, a new business having evolved and expanded over the past three to five years. We were at one time a fraternal organization, collecting membership dues, serving as a repository of data about and for physicians and disseminating that information to the membership. As the practice of medicine became more regulated we began to broaden our scope of activity to include research into and interpretation of regulations impacting on medicine with dissemination of that information.

Over the last several years we have seen a significant expansion of the role of the Arkansas Medical Society. Much of this change driven by the practice environment we find ourselves in. I would like to enumerate some of these activities, or as I prefer, businesses that we are involved in.

By the way, there have been times I thought the Society was a travel agency. Since becoming president I have traveled to 26 counties - some more than once, and I have attended meetings in San Francisco, Chicago, New Orleans and Washington, D.C.

AMS businesses include the non-profit mother corporation, the Arkansas Medical Society, with a budget of 1.1 million dollars. Not reflected on any of the budget or financial reports is the fact that the Society collects dues for our county societies and the AMA. The dollars exceed \$500,000.

We own and operate two private non-profit foundations as well as two for-profit corporations. The Society and its other organizations employ a total of 17 people.

## 1. Real estate.

The Society now owns a building and the land it rests on, carried on the books at \$1.9 million. The Society occupies approximately 25% of the building, on which it pays rent, and leases the remaining 75% at a projected income of over \$300,000 a year.

## 2. Publication.

Your organization publishes a magazine, *The Journal of the Arkansas Medical Society*. The *Journal* costs approximately \$120,000 per year to publish and has a circulation of 4,000 issues per month. Advertising sales cover a major portion of these expenses.

## 3. Education.

The Medical Education Foundation for Arkansas provides funds for special lectures and educational materials for both medical students and residents. Assets are approximately \$400,000. Additionally, the Society



is involved in many educational efforts, seminars and other educational programs for the membership.

#### 4. Lobbying and Governmental Affairs.

Expenditures approach 1/4 of a million dollars.

#### 5. Medical Health Insurance.

AMS Benefits, a for-profit corporation, is an insurance agency and health insurance company. Total income is approximately \$1.2 million per year and growing.

#### 6. Access to Care, Indigent Care Delivery Program.

This is a private foundation operating with a budget of approximately \$90,000 per year. Access to Care coordinates health care for low income individuals. One thousand Arkansas physicians have volunteered their services as well as one half of Arkansas' pharmacies, three major drug companies and all Arkansas hospitals. Since its inception over 7,000 citizens have received health care through this plan. Over 28,000 have been authorized to participate in the program.

#### 7. Physician's Health Committee

An operating division of the Society whose function is to help physicians with dependency problems. It has a budget of \$45,000. The need exists for more funding for this program.

#### 8. Managed Care.

AMS Management Company is a for-profit corporation capitalized in excess of \$500,000 by the members.

Many of you are well informed about this new venture however, I believe it is so central to our mission that I would like to provide you with an overview.

Mrs. Janell Mason is the Executive Director and CEO of Arkansas Medical Society Management Company. She comes to us after serving as president of the Arkansas Preferred Provider Organization in Pine Bluff for seven years. Ms. Mason:

*Five months ago Bill Loweth, consultant for the AMS, presented the results of his managed health care research in Arkansas and an overview of the success of the physician sponsored managed care program in Pine Bluff. Steve Lux, a board member of APPO, discussed the success of their seven year history with the program.*

*On that day the House of Delegates approved petitioning the AMS membership for pledges of \$300 to determine the desire to form a corporation which would assist physicians in the managed care arena. The minimum level of support was set at 1,000 physicians by January 1.*

*Today with over 1,400 physicians, we are well on the way to positioning physicians in a leadership role in*



*Janell Mason addresses the House of Delegates.*

*managed care within our state. Our initial staffing and facilities are in place, our contracts are developed, and we are pleased to report our achievements.*

*Within six weeks, we have visited with approximately 700 physicians. Four community based networks have been incorporated within the state: AMCO RIVER VALLEY REGION, Russellville and surrounding area; AMCO OZARK MOUNTAIN REGION, Harrison and surrounding area; AMCO DELTA HEALTH ALLIANCE, Helena; AMCO SOUTHERN, El Dorado and surrounding area. We have also executed an affiliation agreement with Arkansas Preferred Provider Organization in Pine Bluff.*

*Steering Committees are formed and are in various stages of development in the following counties: Ouachita, Desha, Drew, Ashley, Chicot, Independence, Greene, Clay, Lawrence, Saline and Garland.*

*We have made initial presentations and are waiting appointment of steering committees from the following counties: Baxter, Fulton, Izard, Sharp, Cleburne and Benton.*

*The following counties have requested that we present the program to their physicians: Hot Spring, St. Francis, Sebastian and Benton.*

*We also are in the process of forming an initial steering committee in Pulaski County.*

*The key objective of AMSMC is to provide turnkey support for local physician initiated managed care organizations, positioning physicians to take an aggressive role in the future of managed health care rather than being managed in the future by an insurance company. Our board and that of the local organization's, includes physicians and client employers. Bringing these two entities to the table, working toward one common goal, builds a strong bond, a unique partnership.*

*AMSMC provides complete support at no ongoing cost to our physicians. Our service menu includes legal documentation and assistance, contract review, credentialing, product development, contract negotiation, marketing and assistance to the local board and*

committees. Each community based network shares the same first name, Arkansas Managed Care Organization (AMCO), and is then customized by including the local network's regional name. AMCOs are formed at the request of local physicians and are locally owned and governed. Together with AMSMC, the AMCO board designs products and contracts directly with local employers to offer a comprehensive managed care product where quality and cost efficiency is primary.

The one time investment for those who have not pledged is \$500 for current AMS members. There are no ongoing assessments.

The AMS is to be commended. They have a pro-active position by providing direction and leadership to the membership. AMS members have been afforded the opportunity through development of and participation in the AMCO network to become genuine managers in managed care.

We look forward to serving your networks as they develop in the not too distant future when AMCO is Arkansas' network.

The key to our success is the involvement of individual physicians who understand that we can no longer be concerned with turf. We must stand unified in support of the practice of medicine. We will not survive unless we come together as physicians interested in preserving the practice of medicine as we were taught and as stated in the Hippocratic oath, "I will follow



Dr. Baker has his caricature drawn during the afternoon break in the Exhibit Center on Thursday, April 7, at the Professional Consulting Services, Inc. booth.



AMS 1994-1995 President James M. Kolb, Jr., M.D. presents 1993-1994 President Glen F. Baker, M.D., with the framed cover of the 1993 President's issue of *The Journal of the Arkansas Medical Society*.

that system of regimen which, according to my ability and judgment, I consider for the benefit of my patients."

Our success is dependent upon physicians coming together to preserve the health care delivery system that is in place in their community. Not just primary care or specialty care but the existing integrated system that is in place. This includes physicians and health care facilities as well as ancillary services. There must be access to hospitals, if desired and appropriate, at the community level. Care should be given at the local level. Patients' rights must be considered. Their desire to see a physician of their choice and to receive care in a

hospital of their choice must be preserved. We must preserve the right of individual physicians and patients to make the decision as to where they will receive additional care external to their community.



Our plan is to preserve these rights through the vehicle of the Arkansas Managed Care Organization (AMCO). This is a network of groups of physicians who direct care in their community, utilizing community resources, as they determine appropriate. Credentialing and quality assurance as well as risk taking is retained at the community level. The community of physicians define the makeup of the delivery system and decide upon the risk they wish to take.

The practicing physician, through the formation of a physician organization, will be positioned to contract for and compete with others for the delivery of health care. The Arkansas Medical Society Management Company will provide support, but you as a group will design and be responsible for the delivery system.

My goal this year was to bring the membership together as a cohesive group with a common goal and mission. I wanted us to become an advocate for health care, an advocate for patient rights, and an advocate for physician rights. I wanted us to develop a system that would maintain a community based health care system. I believe that we are well on our way toward reaching that goal.

We now have over 1,400 physician participants in the AMS managed care program. They have accepted

the challenge to be responsible and accountable. Many did this purely on faith believing that the leadership of the Arkansas Medical Society was to be trusted. I thank you for that trust.

I ask that none of you become complacent. Changes will continue. There will be different directions, different players, different agendas. The Arkansas Medical Society Management Company has been incorporated as an entity that can change as often as necessary, as often as national and state agendas change.

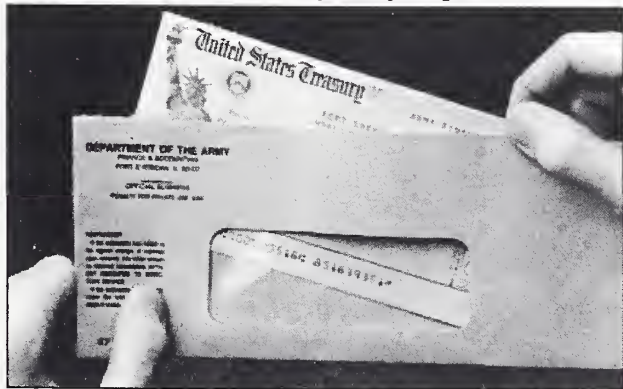
I will point out again that the Arkansas Medical Society's business is your business . . . and you need to be involved.

I have tried to develop and direct this business to meet you the stockholder's (membership) needs. Thank you for your trust and your faith in me. I have worked hard this year on your behalf. It has been a very enjoyable and rewarding year. I could not have accomplished my goal without the strong support of the staff. We the members of the Arkansas Medical Society can be proud of our staff. They are well qualified and dedicated to our mission.

Thank you for honoring me as your president for this past year. ■

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# Report of the 70th Annual Session Arkansas Medical Society Alliance

The 1994 annual meeting of the Alliance was a first with the new name that follows the lead of the American Medical Association Alliance name change in 1993.

With the new name came a time of introspection by the officers and committee chairman in our state. Arleta Power, President 1993-1994, developed a theme for a three year plan to review all aspects of the Alliance.

## **Review, Revise, & Renew. . .**

Stage one of review was initiated by a thorough review and changes in the organizational structure and bylaws.

All members of the Alliance serving in any capacity will be sent a copy. Any general member can obtain a copy by writing to the corresponding secretary.

Changes in bylaws were made to reflect the actual and realistic activities of officers and committees. The new structure also enables officers and committee chairmen to become more familiar with their roles and prepared for advancing positions in the organization.



Mary Ann Stallings, AMSA President 1994-1995, and Evelyn Thomas, President-elect 1994-1995, are excited about the changes and are eager to carry on with the plan to further develop and implement changes that will stimulate interest in the organization.

Darlene Young, Secretary of the AMAA, was the feature speaker at the Alliance meeting and installed the 1994-1995 officers at the annual luncheon held on Saturday.

Jo-Ann Daus, President-elect of the Southern Medical Auxiliary, brought greetings to the House of Delegates and stayed to participate in the meetings.

Helen Padberg, the Historian for the AMSA for the past thirty years prepared a great "exit". She and Rita Rodgers, the incoming historian put together a pictorial and artifact display of the AUXILIARY from its inception in 1925. Everyone enjoyed seeing photographs from earlier years as well as letters with nickel stamps,

minutes and reports, and other memorabilia. Helen was honored for her service to the organization with a certificate and gifts to express appreciation for her tireless and thorough efforts.

The agenda for the Alliance meeting took a different turn this year. General business meetings were scheduled around the feature speakers that the Medical Society brought in. Topics discussed were of interest to everyone and members at the meeting requested that this scheduling be done for future meetings.

The Installation Luncheon was well attended. Craighead-Poinsett County Medical Alliance placed beautiful flower arrangements on each of the tables in Josephine's Restaurant. Several door prizes were given to lucky recipients with "dots" on the backs of their chairs. Arleta Power, outgoing president, presented certificates of appreciation to members who have been active and dedicated to the Auxiliary for many years. Those receiving certificates were Margaret Ann Morgan, Ann Chudy, Helen Padberg, Willie Oates, Margaret Kolb, Corinne Price and Marie Smith.

## **Arkansas Medical Society Alliance Review, Revise, Renew 1993-1996**

### **Planning and Development Committee Report Lyda Campbell, Chairman**

- I. Purpose is to assist the Arkansas Medical Society in programs that improve health and quality of life.

The goal is to establish a joint membership recruitment and retention plan with the Arkansas Medical Society.

The completion date was January, 1995.

1. The results are that the restructuring of the organization chart and revision in the bylaws will serve as an enabler to meet their goal in 1994-1996.
2. Attempts to work more closely with the Arkansas Medical Society are in progress. (Membership Vice President & AMSA President)

- II. Purpose is to promote health education.



This goal needs further development. Surveys of constituent county Auxiliaries or Alliances could serve as direction. (Health Promotion Chairman)

### III. Purpose is to support health related charitable endeavors.

The goal "to develop a marketing campaign to increase contributions to the Health & Education Scholarship Funds and Projects" has not been met. This project will be referred to the Health & Education Foundation President in 1994-1995.

### IV. Purpose is to encourage participation of volunteers in acts that meet educational and health needs.

The goal "to develop a three-year plan/theme based on the "Medical Team" concept" is in progress. Further research and development is recommended. (Planning & Promotions Committee)

The goal of holding a Medical Marriage Seminar for spouses in 1994 was completed. Further research and development is recommended. (Health Promotion Vice President)

The goal "assessing membership potential of possibly interested groups" had a target date of October, 1994. The project is incomplete. The project can be developed with the restructured organization, membership vice presidents and committee members.

The goal "to present proposed bylaws changes to the State Convention" was completed in April, 1994.

The goal "to complete one workshop in each of the four districts of the Arkansas Medical Society Alliance" was not completed. One workshop was completed. There were no more due to lack of interest and response. Alternative methods should be explored. (Planning & Promotions Committee)

The goal "to acquire a display board" was completed. The new committee in reorganization will complete follow-through. (Graphics Chairman)

### V. Purpose of accepting funds to effectuate the purposes of the corporation.

The goal, which was assigned and not completed, was to research the possibility of a part-time executive director of the Arkansas Medical Society Alliance. It is recommended that the project be assigned in 1994-1995. (Special Committee)

The goal "to develop an hourly financial proposal for presentation to the Arkansas Medical Society for clerical assistance" was not assigned. It is recommended this project be assigned for 1994-1995. (Finance Chairman)

It is further recommended that results and information gathered by past and present Alliance members be used to begin a clear and concise Policy and Procedure Manual to facilitate the activities of the Alliance and assure continuity and effective utilization of members' assignments. (Planning and Promotions Committee)



*Top: Darlene Young installs the 1994-1995 officers.*

*Middle: Arkansas Medical Society Alliance (Auxiliary) past presidents.*

*Bottom: Arleta Power, AMSA President 1993-1994, and Mary Ann Stallings, AMSA President 1994-1995, enjoy the buffet in the exhibit hall.*

# Report of the Young Physicians Committee

Spring Meeting - Saturday, April 9, 1994

The Young Physicians Committee held a welcoming reception for young physicians, students and residents on Friday during the annual session. The turnout was good, and everyone enjoyed the opportunity to meet and mingle with physicians of similar age and experience. The reception was highlighted by a cash drawing donated by the Arkansas Medical Society and the Arkansas Medical Society Alliance.

The committee held a meeting on Saturday during the session. The main focus of the meeting was how to increase interest and participation by members of the committee, which would then hopefully inspire more participation by young physicians. The committee will be restructured to hopefully retain members who still have an interest in serving on the committee and recruit new committee members who have more time and interest to devote to the committee.

The committee plans to meet again some time in the summer, after the AMA-HOD meeting.



*Dr. Anna Ridling Redman, Dr. David Murphy and Dr. John Redman visit during the Young Physicians wine and cheese party.*

*Mary Bowlin, wife of Dr. Randal Bowlin of Conway, was the winner of the \$100 door prize.*





## ***Memorials***

*Recognized at the 1994 AMS Annual Session*

### ***Society Members:***

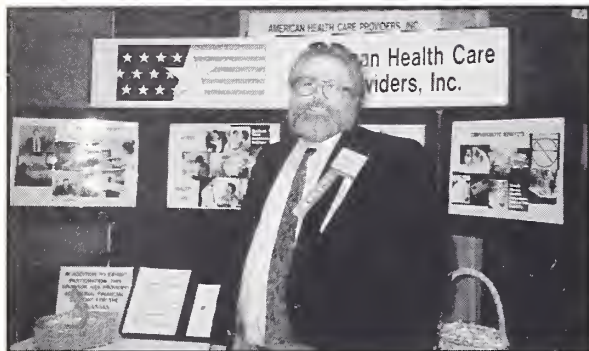
*Edward J. Bass, M.D., El Dorado  
Lee F. Beamer, M.D., Hot Springs Village  
Sam F. Brown, M.D., Texarkana  
William W. Christeson, M.D., Little Rock  
Hugh R. Edwards, M.D., Searcy  
Bland R. Harper, M.D., Monette  
Robert A. Fisher, M.D., Little Rock  
Jean Gladden, M.D., Harrison  
William O. Green, M.D., Maumelle  
Henry G. Hollenberg, M.D., Little Rock  
Thomas G. Johnston, M.D., Little Rock  
Henry V. Kirby, M.D., Harrison  
Oscar Kozberg, M.D., Little Rock  
Harold D. Langston, M.D., Little Rock  
Ruth E. Lesh, M.D., Fayetteville  
W. Sexton Lewis, M.D., Little Rock  
Milton Lubin, M.D., West Memphis  
Joe H. Poff, M.D., Heber Springs  
William T. Raney, M.D., Cave City  
Earnest L. Saunders, M.D., Jonesboro  
Rufus C. Shanlever, M.D., Jonesboro  
N. Henry Simpson, M.D., Little Rock  
Vernon L. Toombs, M.D., Gurdon  
Joe Verser, M.D., Harrisburg  
James W. Webb, M.D., Jonesboro*

### ***Alliance Members and Spouses:***

*Mrs. Charles A. Archer (Mary), Benton  
Mrs. Sylvan Bartlett (Barbara), Midland, TX  
Mrs. Robert A. Calcote (Kay), Lonoke  
Mrs. Floyd S. Dozier (Irene), Marianna  
Mrs. John C. Gilliland (Carole), Fort Smith  
Mrs. Arch A. Little (Marguerite), Texarkana  
Mrs. F. Lamar McMillin (Claudia), Little Rock  
Mrs. Chalmers S. Pool (Mathilde), Little Rock  
Mrs. William Salter (Johanna), Texarkana, TX  
Mrs. Charles A. Smith III (Genevieve), Little Rock*

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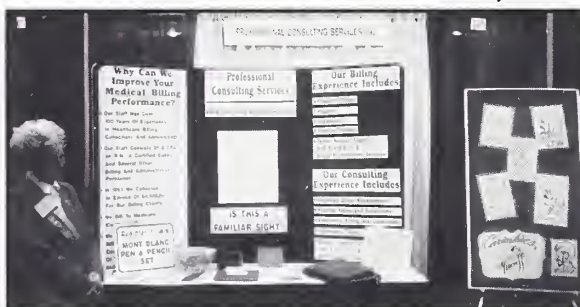
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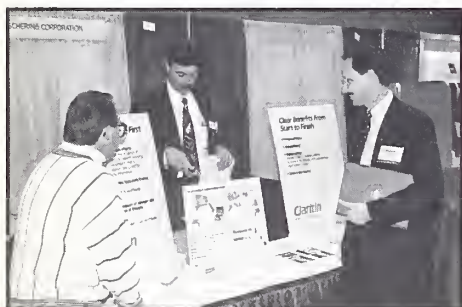
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Worthen National Bank of Arkansas (Welcome Reception)

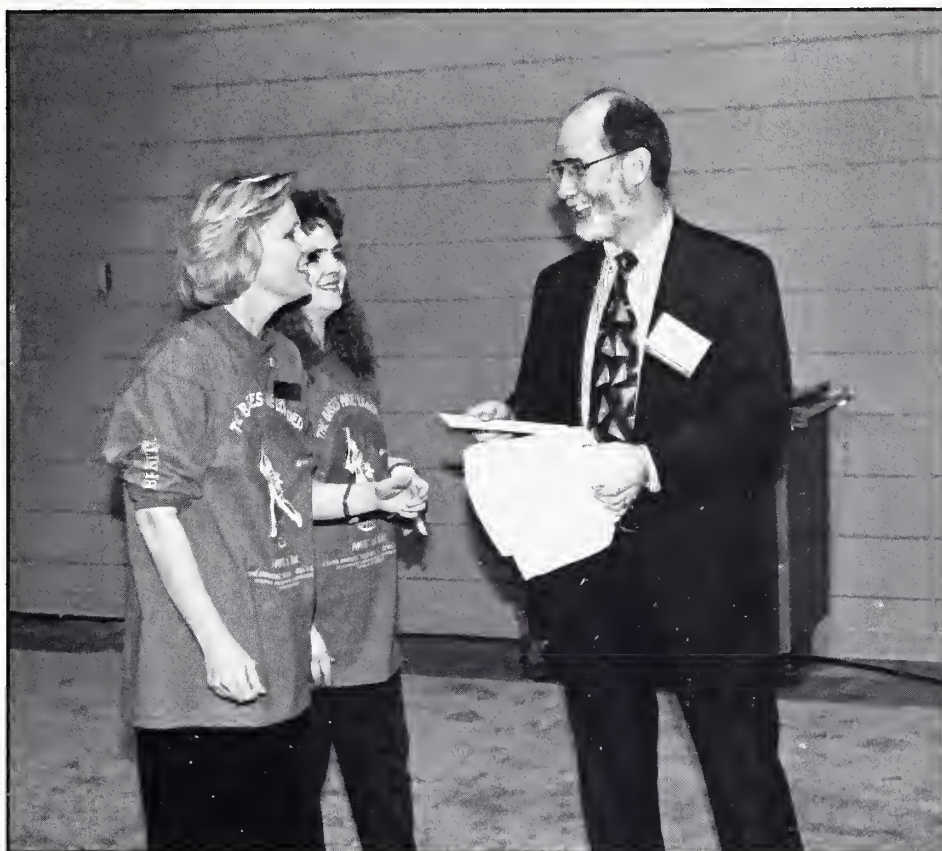
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*Thank you for being a part of our 1994 convention!*



# 1994 Grand Prize Winners



***Above:**  
Thomas F. Hudson, III,  
M.D., of Conway, was the  
winner of the grand prize.  
He won a \$1,000 trip to  
the destination of  
his choice.*

***Right:**  
Gordon Evans, of  
The Upjohn Company,  
won the exhibitor  
grand prize of \$200.*



# Fifty Year Club

SATURDAY, APRIL 9, 1994



The Fifty Year Club is composed of physicians who, for the past fifty years, have loyally and effectively served the community and, by skill and devotion to high ideals, upheld and maintained the standards of the medical profession.

Ben N. Saltzman, M.D., presided over the Fifty Year Club luncheon meeting. Physicians attending the luncheon were Drs. John Ashley, Max Baldridge, Fred Broach, Gilbert Dean, C. R. Ellis, Eldon Fairley, Guy Farris, Buford Gardner, Fred Gordy, James Guthrie, Henry Hearnberger, Robert Henry, Jack Irvin, Payton Kolb, Ralph Kramer, William Lee, C. C. Long, Louis McFarland, Jim McKenzie, Joseph Norton, Ewing Reed, William Reese, George Regnier, Joseph Rosenzweig, Joe Shelton, James Smith, Norman Smith, Bryant Swindoll, Frank Thibault, H. W. Thomas, John G. Watkins, Jr., Oba White, and Walter Wilkins.

Ben N. Saltzman, M.D., of Mountain Home was elected President for 1994-1995.



*Peggy Harrison entertained with light piano music during the Fifty Year Club Luncheon.*



# 1994 Arkansas Medical Society Shuffield Award

Presented Friday, April 8, 1994

James R. Cobb  
Vice Chairman of the Board  
First Commercial Corporation, Little Rock



*AMS 1993-1994 President Glen F. Baker, M.D. presents James R. Cobb with the Shuffield Award.*

James R. Cobb, Vice Chairman of the Board of First Commercial Corporation in Little Rock, was the 1994 recipient of the Shuffield Award. Mr. Cobb was nominated by David L. Harshfield, M.D.

Mr. Cobb was instrumental in guiding CARTI through the Expansion Project and satellite placement in Searcy and Mountain Home.

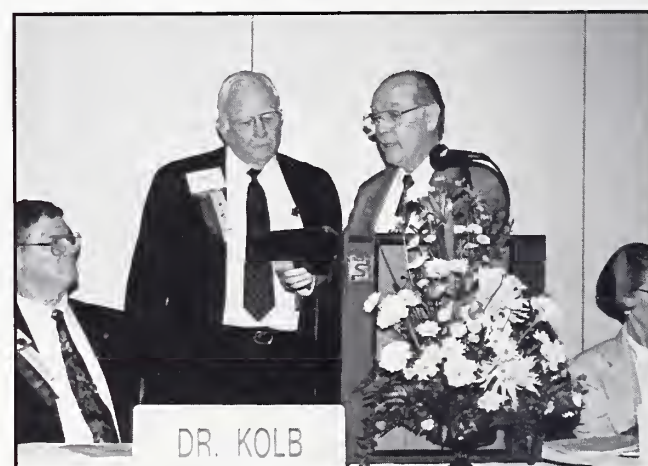
Two projects were accomplished during his chairmanship of the American Cancer Society - the design, construction, and occupancy of the Volunteer Center, and the annual Breast Screening Project.

Mr. Cobb's membership in civic clubs and professional organizations include the following: CARTI - Board of Directors, Finance and Executive Committees, Former Chairman of the Board; CARTI Foundation - Former Director; Arkansas Caduceus Club - Board of Trustees Representing Friends of UAMS; American Cancer Society - Former Chairman of the Board, Crusade Chairman; Little Rock Port Authority - Chairman of the Board; Arkansas Arts Center; Arkansas Repertory Theatre; Ducks Unlimited.



*James R. (Jim) Cobb*

## Other Scenes From Our 1994 Annual Session



### Awards & Presentations

*Top left: Dr. Donald T. Lewers, AMA Board of Trustees, presents Dr. Glen Baker with a check on behalf of the Arkansas Medical Society exceeding its AMA membership goal for the third consecutive prior year.*

*Top right: Dr. Glen Baker presents an award to Dr. Harold Hedges for his service to the Arkansas Health Care Access Foundation.*

*Above left: Dr. Charles Logan made presentations to Drs. James Armstrong, Ronald Bracken (not pictured) and Harold Purdy for their service on the Council.*

*Above right: Dr. Glen Baker presents an award to Dr. Payton Kolb for his service as a delegate to the AMA.*

*Right: Arleta Power, 1993-1994 President of the Arkansas Medical Society Alliance, presents Dr. I. Dodd Wilson, Dean of UAMS, with two checks from AMA-ERF.*







## Arkansas Urologic Society

*Dr. Robert Weiss, Professor/Chairman, Department of Urology, Yale University, spoke Saturday, April 9, on "Diagnosis of Renal Obstruction."*



## The Golf Tournament

*Left top: Keith Billingsley, Dr. Barry Thompson, Dr. David Rogers and Tom Jones.*

*Above: Dr. Walter Wilkins, Steve Mosley, Dwight Callahan and Dr. Charles Hicks.*

*Left: Dr. Jerry Mann, Reed Thompson, Bill McCormick and Dr. Bud Purdy.*

## Other Scenes cont.



### Grand Slam Celebration

*Top left: Lynn and Sara Zeno pose for a picture with Ted Lewis at the Grand Slam Celebration on Friday, April 8.*

*Top right: Mrs. Eleanor Burge and Ted Lewis, our "baseball player."*

*Above left: The GroanUps entertained.*

*Above right: AMS staff members Cindy Sawrie and LeAnne Rogers pose with Ted.*

### A Magical Evening

*Mrs. Nikki Lawson with Andy Hickman.*



# A 3-Minute Salute to a 60-Year Legend in Arkansas Medicine

G. D. Wisdom, M.D.

*The following is a speech made by Dr. G. D. Wisdom in honor of Dr. Joe Verser to the Craighead-Poinsett Medical Society at its meeting on March 1, 1994.*

Hippocrates, the first internist dating to the 5th and 4th centuries, B.C., would have said about Dr. Joe Verser: "He took my oath and cared for his patients honorably and ably for 60 years."

Dr. Joe's life could be recounted in numbers - 60 years in medicine, 6 decades, 3 generations, 6,000 deliveries, 500,000 patient visits.

His life could be recounted in service. He spent hours at the office or in house calls, about a quarter of which he gave free of charge. (Just think of what he left on the table!) He spent countless hours with the Arkansas Medical Association, Arkansas Medical Society, Arkansas Medical Board. He was involved in licensing more than 5,000 physicians. (Many did not receive their licenses since they did not meet the medical board's requirements or more specifically, "Dr. Joe's Criteria").

John Troutt, in an editorial in *The Jonesboro Sun*, said that Dr. Joe raised the quality of health care in Arkansas as much as any one in this century.

Dr. Joe spent his lifetime in medicine. With the half life of medical knowledge of ten years or less, imagine the changes he saw in 60 years! Would you have wanted to practice 20 years ago? Forty? Sixty? Would you have wanted to practice back in the 1930's when measles, typhoid, polio, diphtheria, small pox were prevalent?

What is a house call?

How many times have you accepted a cow, and a dead one at that, in exchange for two home deliveries?

Imagine a doctor of the 30's thrust into the 90's. A whole new alphabet - CT, MRI, HMO, DRG, CPS. What is a computer, a pager, a FAX? Imagine being able to use antibiotics, organ transplants, scans, scopes, profiles, images, consults and consensus to treat a patient.

Dr. Joe practiced the ART of medicine. He probably wondered what happened to that art. Had it be-

come covered with a shroud of technology? Let's hope the art of medicine has not become a casualty of the new technology.

In Dr. Joe's world, at least, he practiced the ART of medicine - caring while curing. His son, Joe William, remembers a farmer who came to Dr. Joe to deliver his newest baby. Dr. Joe said, "Okay, but you owe me for the last delivery." The farmer said, "Maybe I can give you something . . . a cow?" Dr. Joe agreed, delivered the baby, took a look at the cow and announced he'd be back in a few days to pick up his "fee."

The next day, the farmer approached Dr. Joe, "Last night, your cow got into the neighbor's sorghum, ate too much and died. The cow is in his field and he wants you to come bury YOUR COW. Or, I can bury it for you and we'll call it even." Dr. Joe said, "That sounds like a good deal for both of us!"

I visited with Dr. Joe many times during the last few years. He enjoyed his nursing home rounds and Tommy Lynn Crawford, the owner of a nursing home, recently wrote a tribute to Dr. Joe for his care, compassion and philosophy.

About a month ago, we had dinner with Dr. Joe, his wife Bobbye and Dr. Bob Cohen. Knowing his passion for cars (he had nine of them), I jokingly asked if he and Bobbye had come in separate cars. "No," he retorted, "but I want them all in my funeral procession so I'll have a long one!" I looked, and there was his white Excalibar, a Regal replica of a car spanning three generations.

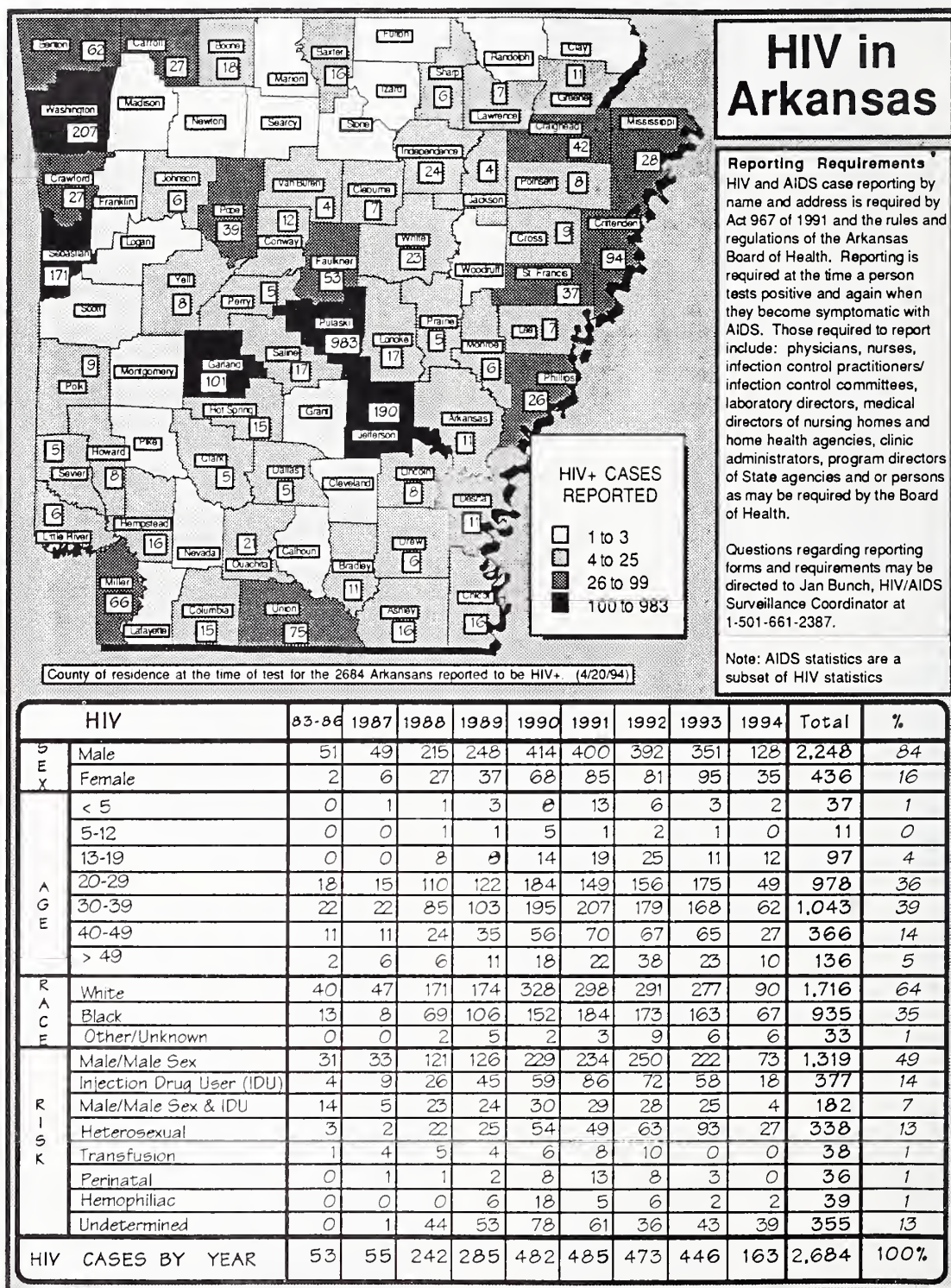
Not long after, that white Excalibar was proudly ready to lead the parade for Dr. Joe.

If there is a special place for doctors who gave their time to organized medicine, saw patients day or night without regard to ability to pay, cared for the elderly in nursing homes day and night . . . If there is a special place for such doctors, Dr. Joe will find it.

And I guarantee you he will be in charge of the admissions.

# Arkansas HIV/AIDS Report

## 1983-1994

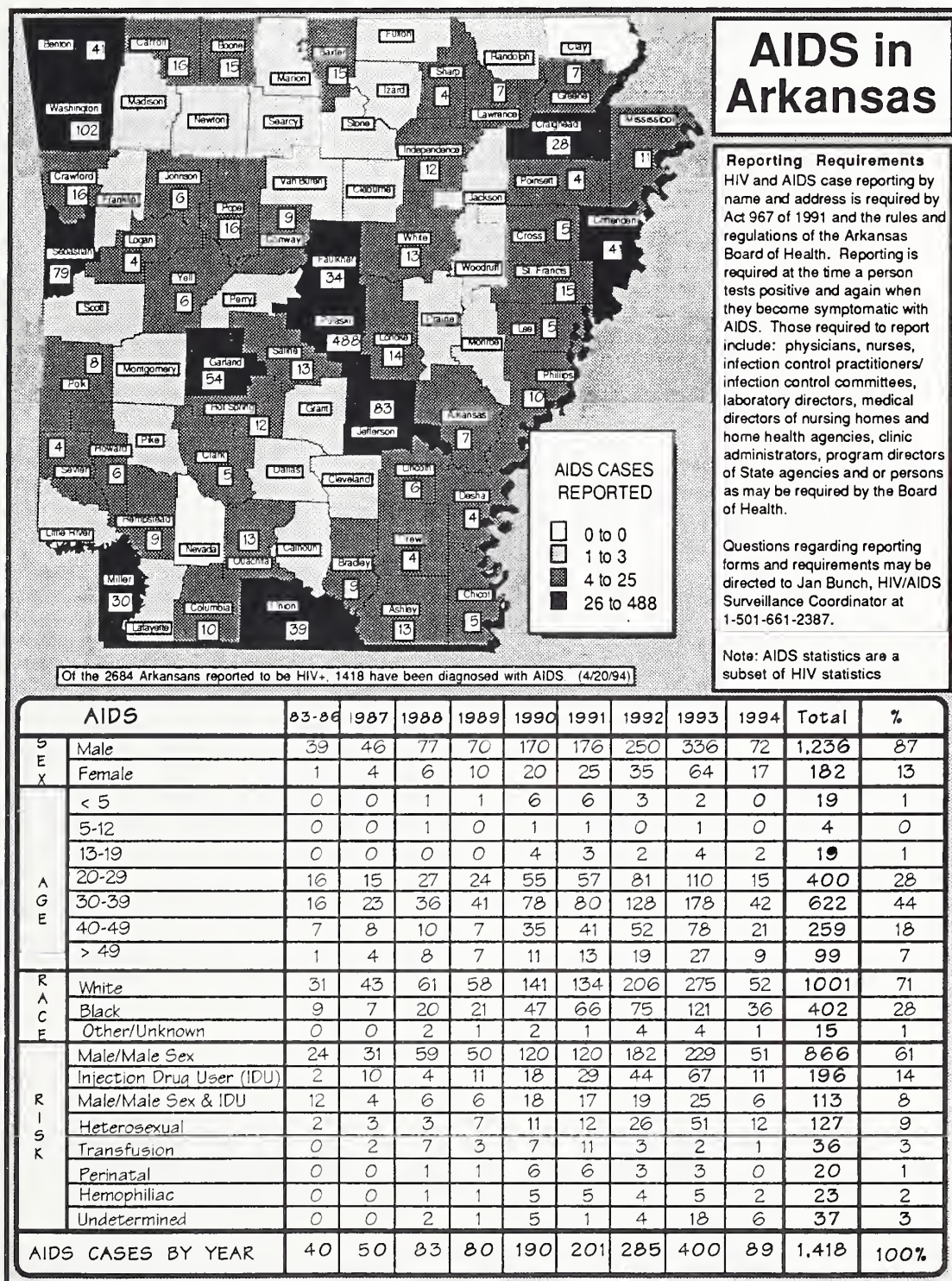


Source: AIDS Surveillance Unit, Arkansas Department of Health.



# Arkansas HIV/AIDS Report

## 1983-1994



Source: AIDS Surveillance Unit, Arkansas Department of Health.

# New Members

---

## ARKADELPHIA

**Kluck, Carl W.**, Pediatrics. Medical education, University of Arkansas for Medical Sciences, 1981. Internship/Residency, Arkansas Children's Hospital, 1984. Board certified.

## FAYETTEVILLE

**Duke, David D.**, OB/GYN. Medical education, UAMS, Little rock, 1989. Internship/Residency, HCA Wesley Medical Center, University of Kansas School of Medicine, 1993.

**Wood, Stephen T.**, General and Vascular Surgery. Medical education, University of Arkansas for Medical Sciences, 1987. Internship/Residency, University of Oklahoma College of Medicine, 1993. Board eligible.

## FORREST CITY

**Iskander, Henein T.**, General Surgery. Medical education, Cairo University, Egypt, 1977. Internship, St. Claire's Hospital, New York, 1980. Residency, St. Claire's Hospital and Lincoln Hospital, New York Medical College, 1984. Board certified.

## HOT SPRINGS

**Johnson, Miles M.**, Physical Medicine & Rehabilitation. Medical education, UTMB, Galveston, 1985. Internship, TTUHSC, Lubbock, 1986. Residency, Parkland Hospital, Dallas, 1989. Board certified.

## LITTLE ROCK

**Astle, Hal G.**, Neurology. Medical education, Texas Tech University, Lubbock, 1988. Internship/Residency, Texas Tech, 1992. Board eligible.

## NORTH LITTLE ROCK

**McLeane, Mark D.**, Anesthesiology. Medical education, LSU School of Medicine, New Orleans, 1983. Internship/Residency, LSU and UAMS, 1987. Board certified.

## ROGERS

**Butch, Randall W.**, Otolaryngology. Medical education, University of Arkansas for Medical Sciences, 1988. Internship/Residency, University of Missouri, Columbia, 1993.

**Marciniak, Douglas L.**, Cardiology. Medical education, Michigan State University College of Osteopathic Medicine, 1979. Internship, Detroit Osteopathic Hospital, 1980. Residency, Grand Rapids Osteopathic

Hospital, 1982. Fellowship, Michigan State University, East Lansing, 1985. Board certified.

## SEARCY

**Blickenstaff, Kyle R.**, Orthopaedic Surgery. Medical education, University of Arkansas for Medical Sciences, 1987. Internship, UAMS, 1988. Residency, University of Mississippi, 1992. Fellowship, University of Oklahoma, 1993.

## RESIDENTS

**Avva, Ramesh**, Diagnostic Radiology. Medical education, Washington University School of Medicine, St. Louis, 1994. Residency, UAMS, Little Rock.

**Bimle, Cynthia P.**, Pediatrics. Medical education, LSU School of Medicine, Shreveport, 1994. Internship, Arkansas Children's Hospital, Little Rock.

**Buchanan, Grace A.**, Pediatrics. Medical education, University of Arkansas for Medical Sciences, Little Rock, 1993. Internship, UAMS, 1994. Residency, University of Florida, Gainesville.

**Diles, Timothy R.**, Anesthesiology. Medical education, University of Arkansas for Medical Sciences, 1994. Residency, UAMS.

**Duke, John R.**, Family Practice. Medical education, University of Arkansas for Medical Sciences, 1994. Residency, UAMS.

**Haight, Ann E.** Medical education, Medical College of Georgia, Augusta, 1994. Internship, Arkansas Children's Hospital.

**Hatcher, Alexander H.**, Emergency Medicine. Medical education, University of Texas, Houston, 1994. Internship, UAMS, Little Rock.

**Mazade, Marc A.**, Pediatrics. Medical education, University of Texas Medical Branch at Galveston, 1994. Residency, UAMS/Arkansas Children's Hospital.

**Perry, Lisa L.**, Emergency Medicine. Medical education, University of Alabama, Birmingham, 1994. Residency, UAMS.

**Vartanian, Levon**, Emergency Medicine. Medical education, University of Texas Medical School, Houston, 1994. Internship/Residency, UAMS.

**Veach, Paul A.**, Emergency Medicine. Medical education, University of South Carolina School of Medicine, 1994. Internship, UAMS.



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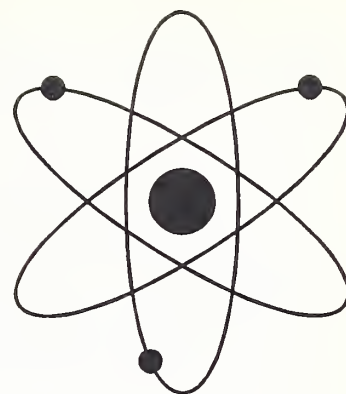


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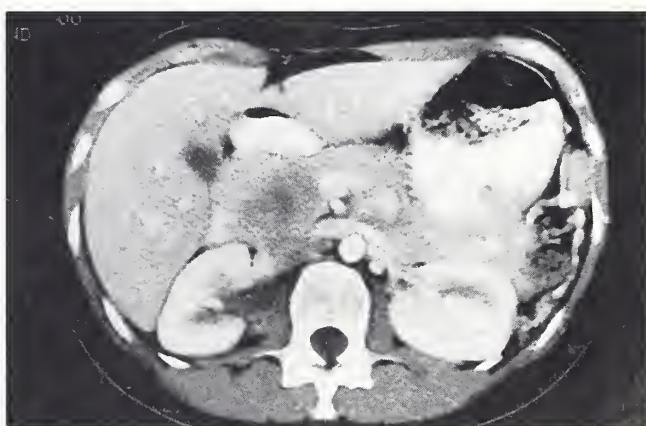
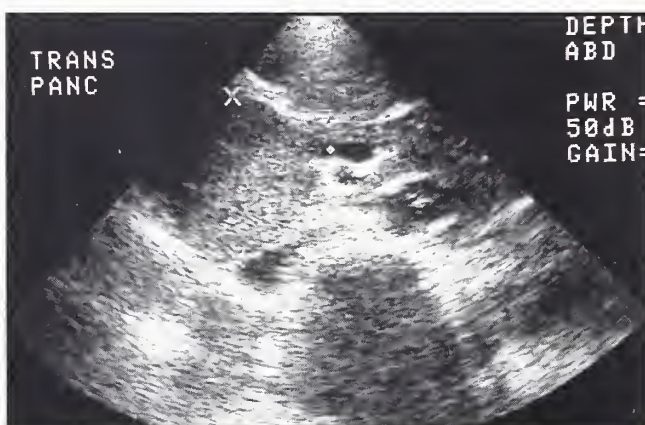
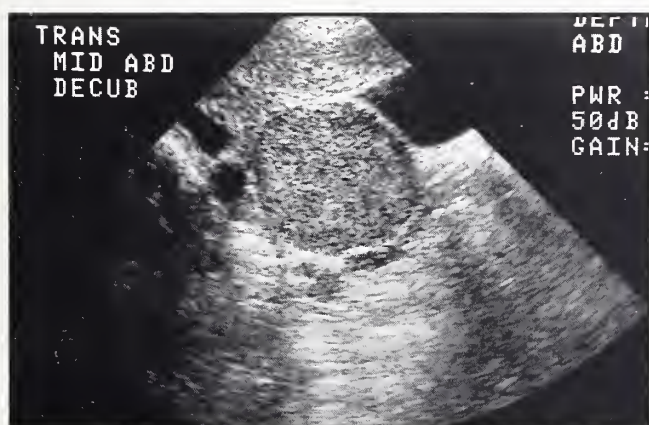
# Radiological Case of the Month



Steven R. Nokes, M.D.  
Scott B. Harter, M.D.  
John W. Baker, M.D.  
S. Steven Jones, M.D.  
Gary S. Markland, M.D.

## History:

An upper abdominal mass was suspected in a pregnant 18-year-old. An ultrasound was performed (Figure 1a & b). A CT of the abdomen was obtained post partum six months later (Figure 2a & b).



**Top:** Figure 1 (a) Oblique and (b) transverse ultrasound images through the head of the pancreas.

**Bottom:** Figure 2 (a & b): Axial dynamic CT images at the level of the pancreatic head.

---

# Papillary epithelial neoplasm of the pancreas.

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## Findings:

Ultrasound reveals a circumscribed homogeneous 5 cm mass between the head of the pancreas and the caudate lobe of the liver. Follow-up CT of the abdomen shows slight enlargement of a circumscribed predominately low attenuation mass arising from the head of the pancreas, with a few central calcifications.

## Discussion:

Solid and papillary epithelial neoplasm is a rare pancreatic tumor with low malignant potential. It occurs over a wide age range (13-73), but the great majority of patients are less than 30. There is a strong female predilection, and the tumor is more common in blacks than whites.

Ultrasound and CT features are nonspecific, usually demonstrating a large (mean 8 cm) circumscribed mass in the pancreas. Hepatic metastases do occur, but are unusual. The tumors range from predominately cystic to entirely solid. Calcification and hemorrhagic necrosis are common. CT best demonstrates calcification. MRI is more sensitive for hemorrhage.

The differential diagnosis of solid and papillary epithelial neoplasm includes serous cystadenoma, mucinous cystic neoplasms, non-functioning islet cell tumors, and paancreatoblastoma. Of these, the first three are rare before age 30, and paancreatoblastoma is essentially a very rare tumor of childhood. The findings of a large pancreatic mass with evidence of hemorrhage in a young female is very suggestive of the diagnosis.

Although the diagnosis can be made with fine needle aspiration, surgical excision is necessary, and is usually curative. Even patients with hepatic metastases who undergo hepatic resection may be cured.

## References

1. Balthazar EJ et al. Solid and papillary epithelial neoplasm of the pancreas: radiographic, CT, sonographic and angiographic features. *Radiology* 1984; 150: 39-40.
2. Freidman AC et al. Papillary cystic epithelial neoplasm of the pancreas. *Radiology* 1985; 154:333-337.
3. Rustin RB et al. Papillary cystic epithelial neoplasms of the pancreas. A clinical study of four cases. *Arch. Surg.* 1986; 121:1073-1076.
4. Ohtomo K et al. Solid and papillary epithelial neoplasm of the pancreas: MR imaging and pathologic correlation. *Radiology* 1992; 184:567-570.

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*Editor: Steven R. Nokes, M.D., is affiliated with Radiology Consultants in Little Rock.*

*Contributor: Scott B. Harter, M.D., is affiliated with Radiology Consultants in Little Rock.*

*Contributor: John W. Baker, M.D., is in private practice in Little Rock.*

*Contributor: Gary S. Markland, M.D., is affiliated with Pathology Labs of Arkansas.*

*Contributor: R. Steven Jones, M.D., is affiliated with the Little Rock Diagnostic Clinic.*





# Resolution

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## Henry G. Hollenberg, M.D.

Whereas, the members of the Pulaski County Medical Society are saddened to learn of the death of one of their most esteemed colleagues, Henry G. Hollenberg, M.D.; and

Whereas, he was a loyal member of this Society for over forty years, giving generously of his time and talent to numerous positions, including serving as President in 1948; and

Whereas, Dr. Hollenberg's service in the Army Medical Corps during World War II, for which he was presented the Legion of Merit Award, was distinguished by the leadership role he played in the development of penicillin as a mainstream medicine; and

Whereas, he was loved and respected by his patients and peers alike for his expertise in surgery and his gracious and caring spirit; be it therefore

*RESOLVED*, that this resolution be adopted and filed in the permanent archives of this Society; and

*RESOLVED*, that a copy be forwarded to Dr. Hollenberg's family as a token of our sincere sorrow; and

*RESOLVED*, that a copy be made available to *The Journal of the Arkansas Medical Society* for publication.

Adopted  
Executive Committee  
May 18, 1994

By Order of the Memorials Committee  
Bruce E. Schratz, M.D., Chairman  
James Headstream, M.D.  
Robert Watson, M.D.

# In Memoriam

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## Walter M. Bond, M.D.

Walter M. Bond, M.D., of Waverly, Ohio, died April 14, 1994. He was 79.

Dr. Bond was a member of the Arkansas Medical Society Fifty Year Club.

Survivors include his wife Florence of Waverly, Ohio.

## Julia Chester Andrews Lile

Julia Chester Andrews Lile, of Little Rock, died Sunday, April 15, 1994. She was 94.

She was the widow of Dr. Luther M. Lile. Survivors are a daughter, Alice Lile, and a son, Dr. Henry Lile, both of Little Rock, and four grandchildren.

## Max J. Mobley, M.D.

Max J. Mobley, M.D., of Russellville, died Thursday, April 28, 1994. He was 76.

Dr. Mobley was a member of the Arkansas Medical Society Fifty Year Club.

Survivors include his wife Margaret of Russellville.

## Ruth Elizabeth "Betty" Saltzman

Ruth Elizabeth "Betty" Saltzman, of Mountain Home, died Thursday, May 19, 1994. She was 77.

She was survived by her husband, Dr. Ben N. Saltzman; sons, John and Mark Saltzman; daughter, Sue Adams; sister, Elaine Hooper; 4 grandchildren.



# Medicine in the News

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## Health Care Access Foundation Update

As of May 1, 1994, the Arkansas Health Care Access Foundation has provided free medical service to 7,495 medically indigent persons, received 14,339 applications, and enrolled 29,103 persons.

This program has 1,615 volunteer health care providers including medical doctors, dentists, hospitals, home health agencies and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.

## Health Care Access Foundation a Semifinalist in Golden Rule Awards

Arkansas Health Care Access Foundation was one of 10 semifinalists in the J.C. Penney Co. "Golden Rule Awards." Semifinalists received \$250 donations for their organizations. Six winners received a Waterford crystal trophy and a \$1,000 check for each one's volunteer group. Winners and semifinalists also received a congratulatory message from President Clinton.

Adult winners included: Murphy Keathley for her work with the Visiting Nurse Association; Mary Matthews, who works in affiliation with the Parent Centers/Centers for Youth & Families; Peggie Sears, volunteer with Youth Home, Inc.; Hoddy Sitlington, who

founded the Regional AIDS Interfaith Network after her son died of AIDS in 1987; Dr. Rogene Weathers who founded the Arkansas chapter of the Alzheimer's Disease & Related Disorders Association; Law Students for Literacy, a University of Arkansas at Little Rock Law School organization, won the Golden Rule Award in education; and Yetu Robinson, a senior at Parkview Magnet High School, who won the youth award for his work with the Salvation Army.

Semifinalists were Arkansas Health Care Access Foundation; Margaret Booth of Literacy Action of Central Arkansas; Cindy Dale of Court Appointed Special Advocates Program; Bill Eubanks of Ecumenical Prison Ministry; the Golden Knights Keystone Club of the North Little Rock Boys & Girls Club; Mary Katherine Raper of the First Methodist Church's Child Development Center; Oscar Washington of Big Brothers/Big Sisters; Anale Newton-Yarbrough of Retired Senior Volunteer Program; and Luellen Young of the Salvation Army Women's Auxiliary.

The J.C. Penney program, which awarded more than \$1.6 million to community groups nationwide last year, was also sponsored by the United Way of Central Arkansas. Winners were picked from about 50 nominees by a 13-member committee headed by Willie Oates.

# AMS Newsmakers

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**Dr. Joseph D. Calhoun**, of Little Rock, has been awarded the American Roentgen Ray Society (ARRS) Gold Medal for his outstanding contributions to the field of radiology. The Gold Medal is the most prestigious award given by the ARRS. Dr. Calhoun received the award during the ARRS annual meeting held April 24-29 in New Orleans, Louisiana.

**Dr. Harold Chakeles**, a Little Rock orthopedic surgeon, was appointed to the University of Central Arkansas board of trustees by Gov. Jim Guy Tucker. Dr. Chakeles served on the board from 1985 to 1992.

**Dr. C.W. Jackson** and his wife, Marianne, were honored on April 17 in Judsonia for "Dr. and Mrs. C.W. Jackson Day" in recognition of their contributions and support to the medical profession, education and hospital care.

**Dr. P. "Reddy" Tukivakala** has been named the interim medical director of the rehabilitation center at Helena Regional Medical Center. Dr. Tukivakala received his medical degree at Guntur University in India and completed his residency in internal medicine at St. Agnes Hospital in Baltimore.

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# Breast-Conservation Treatment



## *AT LEAST ONE-THIRD OF ALL BREAST CANCER PATIENTS COULD HAVE LUMPECTOMY FOLLOWED BY RADIATION THERAPY*

The American Cancer Society, the American College of Surgeons and the American College of Radiology have agreed that women whose early breast cancer was detected by mammography are candidates for breast-saving treatment. This treatment consists of lumpectomy with axillary node sampling followed by radiation therapy to the breast. According to new standards, women with small lumps, those with tumors as large as two inches, and even some women with positive nodes may be candidates for this treatment.

The purpose of the breast-conserving treatment is to treat these patients adequately but with a good cosmetic result. Stage for stage, patients treated in this manner have the same longevity and the same freedom from local recurrence as those treated with mastectomy.

For copies of the standards please contact Keri Sperry, American College of Radiology, 1891 Preston White Drive, Reston, VA 22091.

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# Things To Come

## June 23-25

**Abusable Medications and Clinical Challenges.** Washington University Medical Center, St. Louis. For more information, contact the Washington University School of Medicine, Office of Continuing Medical Education, (800) 325-9862 or (314) 362-6893.

## June 23-25

**1st Annual Meeting of the Southern Association for Family Practice.** The Woodlands, Williamsburg, Virginia. For more information, call (800) 423-4992.

## July 7-8

**The Second International Conference on the Varicella-Zoster Virus.** Paris, France. Sponsored by the VZV Research Foundation, Inc. For more information, contact Gigi Bertot, (212) 472-7148.

## July 14-15

**New Approaches to Define Nutrient Requirements.** Western Human Nutrition Research Center, Presidio, San Francisco. Category I credit: 13 hours. Sponsored by the Office of Continuing Medical Education, UC Davis School of Medicine and Medical Center. For more information, call (916) 734-5390.

## July 15-16

**Hand Review '94.** Holiday Inn, Capitol Plaza, Sacramento, Calif. Sponsored by the Office of Continuing Medical Education, UC Davis School of Medicine and Medical Center. For more information, call (916) 734-5390.

## July 16-22

**19th Annual National Wellness Conference.** University of Wisconsin, Stevens Point, Wisconsin. For more information, call (800) 243-8694.

## July 28-30

**Clinical Allergy for the Practicing Physician.** The Ritz-Carlton Hotel, St. Louis. For more information, contact the Washington University School of Medicine, Office of Continuing Medical Education, (800) 325-9862 or (314) 362-6893.

## July 28-30

**7th Annual Meeting of the Southern Association for Oncology.** Jekyll Island Club Hotel, Jekyll Island, Georgia. For more information, call (205) 942-0530.

## August 14-19

**New Advances in Internal Medicine: Clinical Applications.** Hyatt Regency, Monterey, California. Sponsored by the Office of Continuing Medical Education, UC Davis School of Medicine and Medical Center. Category I credit: 25 hours. For more information, call (916) 734-5390.

## August 19-21

**Southern Orthopaedic Association 1994 Annual Meeting.** The Southampton Princess, Bermuda. For more information, contact Linda Willingham at the Southern Orthopaedic Association, (205) 945-1848.

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# We Agree.

Every state medical society, 64 medical specialty societies, and the American Medical Association agree that any health system reform legislation must contain the principles outlined in the letter below:

February 23, 1994

## Dear Senator/Representative;

As physician organizations, we agree on the need for health system reform legislation that gives every American universal coverage for health care and effectively controls rising health costs, while ensuring quality patient care. These principles have been articulated by numerous medical organizations in their various health system reform policies and proposals. They remain the foundation of our legislative agenda, which is to enact laws that assure universal coverage for a standard set of health benefits, regardless of employment or economic status.

We believe that any measure adopted by the Congress should:

- Achieve universal coverage through a program where responsibility is shared by employers, individuals, and government in paying for health care coverage.
- Assure that every American has his/her choice of health plans, physicians, and other providers.
- Establish competition in the marketplace as a method of slowing the rate of growth in health spending.
- Give patients price and quality information to permit them to make informed decisions.
- Eliminate needless bureaucracy to create an efficient, streamlined, and coordinated system that minimizes red tape for patients, physicians, and other providers. Furthermore, health system reform must leave medical decision-making in the hands of physicians and their patients.

We believe that to enable physicians to best serve the interests of their patients, meaningful health system reform also must contain these elements:

- Significant antitrust relief that enables physicians to have a strong voice to balance the growing corporate and government domination of health care.
- Allow for physician-directed health care networks.
- Enhanced self-regulatory powers that would enable the profession to effectively police itself and its members without the threat of unwarranted litigation.

We also believe that major reforms in the professional liability system must be enacted, including a \$250,000 cap on non-economic damages, limits on plaintiff attorneys' fees, and other measures that would minimize defensive medicine.

Every American will be affected by this legislation. The focus of policy-makers should be on how their decisions will affect patient care. Any system that raises significant barriers between patients and physicians will not provide the quality care our nation expects and deserves. We believe the above principles outline a framework for establishing constructive, effective, and needed health system reform.

American Medical Association  
Physicians dedicated to the health of America



Aerospace Medical Association  
Medical Association of the State of Alabama  
Alaska State Medical Association  
American Academy of Child & Adolescent Psychiatry  
American Academy of Dermatology  
American Academy of Facial Plastic & Reconstructive Surgery  
American Academy of Family Physicians  
American Academy of Insurance Medicine  
American Academy of Neurology  
American Academy of Ophthalmology  
American Academy of Orthopaedic Surgeons  
American Academy of Otolaryngic Allergy  
American Academy of Otolaryngology — Head & Neck Surgery  
American Academy of Pain Medicine  
American Academy of Pediatrics  
American Academy of Physical Medicine and Rehabilitation  
American Association of Clinical Endocrinologists  
American Association of Clinical Urologists, Inc.  
American Association of Electrodiagnostic Medicine  
American Association of Neurological Surgeons  
American College of Allergy and Immunology  
American College of Cardiology  
American College of Chest Physicians  
American College of Emergency Physicians  
American College of Gastroenterology  
American College of Legal Medicine  
American College of Medical Quality  
American College of Nuclear Medicine  
American College of Nuclear Physicians  
American College of Obstetricians and Gynecologists  
American College of Physicians  
American College of Rheumatology  
American Fertility Society  
American Gastroenterological Association  
American Group Practice Association  
American Medical Association  
American Medical Directors Association  
American Orthopaedic Association  
American Orthopaedic Foot and Ankle Society  
American Pediatric Surgical Association  
American Psychiatric Association  
American Roentgen Ray Society  
American Society of Abdominal Surgeons  
American Society of Addiction Medicine, Inc.  
American Society of Anesthesiologists  
American Society of Cataract and Refractive Surgery  
American Society of Clinical Oncology  
American Society of Clinical Pathologists  
American Society of Colon and Rectal Surgeons  
American Society for Dermatologic Surgery  
American Society for Gastrointestinal Endoscopy  
American Society of Hematology  
American Society of Internal Medicine  
American Society of Maxillofacial Surgeons  
American Society of Plastic and Reconstructive Surgeons, Inc.  
American Society for Therapeutic Radiology and Oncology  
American Thoracic Society  
American Urological Association  
Arizona Medical Association, Inc.  
Arkansas Medical Society  
California Medical Association  
College of American Pathologists  
Colorado Medical Society  
Congress of Neurological Surgeons  
Connecticut State Medical Society  
Contact Lens Association of Ophthalmologists, Inc.  
Medical Society of Delaware  
Medical Society of the District of Columbia  
Florida Medical Association  
Medical Association of Georgia  
Hawaii Medical Association  
Idaho Medical Association  
Illinois State Medical Society  
Indiana State Medical Association  
Iowa Medical Society  
Kansas Medical Society  
Kentucky Medical Association  
Louisiana State Medical Society  
Maine Medical Association  
Medical & Chirurgical Faculty of the State of Maryland  
Massachusetts Medical Society  
Michigan State Medical Society  
Minnesota Medical Association  
Mississippi State Medical Association  
Missouri State Medical Association  
Montana Medical Association  
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New Hampshire Medical Society  
Medical Society of New Jersey  
New Mexico Medical Society  
Medical Society of the State of New York  
North Carolina Medical Society  
North Dakota Medical Association  
Ohio State Medical Association  
Oklahoma State Medical Association  
Oregon Medical Association  
Pennsylvania Medical Society  
Radiological Society of North America  
Renal Physicians Association  
Rhode Island Medical Society  
Society for Cardiovascular and Interventional Radiology  
Society of Critical Care Medicine  
Society for Investigative Ophthalmology, Inc.  
Society of Nuclear Medicine  
South Carolina Medical Association  
South Dakota State Medical Association  
Tennessee Medical Association  
Texas Medical Association  
Utah Medical Association  
Vermont State Medical Society  
Medical Society of Virginia  
Washington State Medical Association  
West Virginia State Medical Association  
State Medical Society of Wisconsin  
Wyoming Medical Society

Join your colleagues in your county and state medical societies and the AMA. And stand with the organizations that stand behind you.

# Keeping Up

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## **UAMS College of Medicine Alumni Weekend**

June 10-12, Friday night awards banquet at Excelsior Hotel, Little Rock. Individual class dinners on Saturday night at the Capital and Excelsior Hotels; Sunday brunch, Capital Hotel. Sponsored by the Arkansas Caduceus Club, College of Medicine Alumni Association. For more information, call 686-6684.

## **Health Care Ethics Workshop**

June 12-17, Little Rock. Presented by the Division of Medical Humanities at the University of Arkansas for Medical Sciences. Fee: \$290. For more information, call Chris Hackler at 661-7970.

## **Rheumatology**

June 21, 6:30 p.m., Baxter County Regional Hospital Education Building. Sponsored by Baxter County Regional Hospital and presented by Andrew R. Baldassare, M.D. Category I credit offered: 2.0 hours. No fee.

## **Hypertensive Diabetes**

June 23, 12:00 noon, MCSA Conference Room #3, El Dorado. Sponsored by AHEC South Arkansas and presented by Alan Garber, M.D. Category I credit offered: 1.0 hour.

## **Anticoagulation Conference**

Saturday, June 25, University of Arkansas for Medical Sciences, Medical Education II Building. This conference is sponsored by the Arkansas Foundation for Medical Care, the AHEC System, General Internal Medicine Division of UAMS, Arkansas Department of Health and the Arkansas Medical Society. The conference is supported by a grant from DuPont-Merck.

Topics will include Stroke Prevention in Atrial Fibrillation, Proper Diagnosis and Treatment of Deep Vein Thrombosis and New Methods of Safe Monitoring of Coumadin.

For additional information, call Donna Didier at 785-2471, ext. \*204.

## **Thrombotic Disorders**

July 14, 12:00 noon, MCSA Conference Room #3, El Dorado. Sponsored by AHEC South Arkansas and presented by John Eidt, M.D. Category I credit offered: 1.0 hour.

## **Hepatitis C**

July 28, 12:00 noon, MCSA Conference Room #3, El Dorado. Sponsored by AHEC South Arkansas and presented by Jerry Mann, M.D. Category I credit offered: 1.0 hour.

## **Recurring Education Programs**

*As organizations accredited for continuing medical education by the Arkansas Medical Society, the organizations named certify that these continuing medical education activities meet the criteria for the credit hours specified in Category I of the Physician's Recognition Award of the American Medical Association.*

### **FAYETTEVILLE-VA MEDICAL CENTER**

General Medical Topics, Thursdays, 12:00 noon, Auditorium, Bldg. 3

Medical Grand Rounds, Thursdays, 12:00 noon, Conference Room, Bldg. 4

### **HOT SPRINGS-AMI NATIONAL PARK MEDICAL CENTER**

Continuing Medical Education Luncheon, June 24, July 8, 12:30 p.m., AMI Ozark - Quapaw Room

### **LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL**

Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium

Genetics Conference, Wednesdays, 12:00 noon, Sturgis Bldg., room 457

Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom



*Pediatric Grand Rounds*, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium  
*Pediatric Neuroscience Conference*, 1st Thursday, 8:00 a.m., 2nd Floor Classroom  
*Pediatric Pharmacology Conference*, 5th Wednesday, 12:00 noon, 2nd Classroom  
*Pediatric Research Conference*, 1st Thursday, 12:00 noon, 2nd Floor Classroom

#### **LITTLE ROCK-ST. VINCENT INFIRMARY MEDICAL CENTER**

*Cancer Conferences*, Thursdays, 12:00 noon, location to be announced. Lunch provided.  
*Chest Conference*, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Sandwich buffet served  
*General Surgery Grand Rounds*, 1st Thursday, 7:00 a.m. Smith Room. Light breakfast provided.  
*GYN Surgery Cancer Conference*, 2nd Monday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
*Interdisciplinary AIDS Conference*, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
*Joint Tumor Conference*, 1st Wednesday, 12:00 noon. CARTI Auditorium. Lunch provided.  
*Journal Club*, Tuesdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
*Mental Health Conference*, 3rd Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
*Urology Grand Rounds*, 1st Tuesday, 5:30 p.m., Southwestern Bell/Arkla room. Refreshments provided

#### **LITTLE ROCK-BAPTIST MEDICAL CENTER**

*Anesthesiology Conference*, 3rd Thursday, 7:00 a.m., Conference Room 1  
*Breast Conference*, 3rd Thursday, 7:00 a.m., Conference Room 1  
*GI Conference*, 4th Friday, 11:30 a.m., Conference Room 1  
*Grand Rounds Conference*, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.  
*Pathology Conference*, 1st Tuesday, 3:00 p.m., Pathology Library  
*Pediatric Grand Rounds*, Tuesdays, 12:00 noon, Especially for Women Resource Room, 2nd floor/BMC. Category 1 credit available. Lunch provided.  
*Pulmonary Conference*, Tuesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.  
*Sleep Case Conference*, Fridays, 12:00 noon. Call BMC ext. 1902 for location. Lunch provided.

#### **NORTH LITTLE ROCK-BAPTIST MEMORIAL HOSPITAL**

*Chest & Problems Case Conference*, 3rd Wednesday, 12:00 noon, Assembly room. Lunch provided.  
*Medicine Conference*, 1st Wednesday, 12:00 noon, Assembly room. Lunch provided.  
*Surgery Conference*, 2nd Wednesday, 12:00 noon, Assembly room. Lunch provided.  
*X-ray Case Conference*, 4th Wednesday, 12:00 noon, Assembly room. Lunch provided.

*As an organization accredited for continuing medical education by the Accreditation Council for Continuing Medical Education, the University of Arkansas for Medical Sciences certifies the following continuing medical education activities meet the criteria for Category I of the Physician's Recognition Award of the American Medical Association.*

#### **LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES**

*ACRC Oncology Forum*, Thursdays, 4:00 p.m., UAMS ACRC 2nd Floor Board room, 1.5 credits  
*Anesthesia Lecture Series*, Wednesdays, 4:00 p.m., UAMS Education Bldg., room G/110 A&B  
*Anesthesia Morbidity & Mortality Conference*, Tuesdays, 6:45 a.m.; 2nd & 4th Thursdays, 4:00 p.m., UAMS Education Bldg., room G/110 A&B  
*Arkansas Blood & Cancer Society Conference*, 6th Thursday, 7:30 p.m. Terrace Restaurant, Little Rock  
*Cardiology Clinical Conference*, Mondays, 4:00 p.m., UAMS, room 3S06  
*Cardiology Graphics Conference*, Wednesdays, 12:00 noon, UAMS, room 3S06  
*CARTI North Tumor Board Cancer Conference*, 2nd Wednesday, 12:00 noon, CARTI North, Searcy  
*Cardiothoracic Surgery Conference*, date, time, & location varies  
*Cardiothoracic Surgery Monthly Journals Club*, 4th Saturday, 9:30 a.m., UAMS Surgery Dept. Library, room 2S/28D  
*Cardiothoracic Surgery Morbidity & Mortality Conference*, 2nd Saturday, 9:30 a.m., UAMS Surgery Dept. Library, room 2S/28D  
*Child Psychiatry Update/Case Conference*, 3 Fridays per month, 1:00 p.m., ACH Child Study Center conference room  
*CME Outreach Program*, dates, times & locations vary  
*Emergency Medicine Didactic Conference 1*, Thursdays, 12:00 noon. UAMS Education Bldg., room G/110A&B  
*Emergency Medicine Didactic Conference 2*, Thursdays, 1:00 p.m., UAMS Education Bldg., room G/110A&B  
*Emergency Medicine Grand Rounds 1*, Tuesdays, 3:00 p.m., UAMS Education Bldg., room B/106A&B  
*Emergency Medicine Grand Rounds 2*, Tuesdays, 4:00 p.m., UAMS Education Bldg., room B/106A&B  
*Endocrinology Case Conference*, Fridays, 7:30 a.m., ACRC 3rd floor conference room  
*Family Practice Grand Rounds*, Tuesdays, 12:15 p.m., Family Practice Center, 6th and Elm  
*Gastroenterology Grand Rounds*, Thursdays, 4:00 p.m., Gastroenterology conference room, 3D29  
*GI/Radiology Conference*, Tuesdays, 8:00 a.m., UAMS Radiology conference room, M1/293  
*Hematology/Oncology Fellow's Forum*, Fridays, 8:15 a.m., ACRC Betsy Blass conference room  
*Interhospital Urology Grand Rounds*, 1st Tuesday, 5:30 p.m., St. Vincent Arkla/Bell room  
*LR Cancer Conference*, Wednesdays, 12:00 noon, UAMS ACRC conference room three times a month, CARTI Auditorium once a month

*LR Vascular Conference*, time & date varies monthly, rotates between UAMS, SVI & BMC  
*Medicine Grand Rounds*, Thursdays, 12:00 noon, UAMS Education Bldg., room G/131A&B  
*Med/Path Conference*, 3rd or 4th Tuesday, 3:00 p.m., UAMS Shorey Bldg., room S/306  
*Medicine Journal Club*, alternate Thursdays, 7:30 a.m., ACC Medicine Clinic conference room  
*Medicine Research Conference*, Wednesdays (except 3rd), 4:30 p.m. UAMS Education Bldg. room B/135  
*Neurology Clinical Case Conference*, Thursdays, 8:00 a.m., rotates between VAMC-LR, UAMS, & ACH  
*Neuropathology Conference*, Thursdays, 9:15 a.m. VAMC-LR Pathology Dept. 1.25 credit hours  
*Neuroradiology Conference*, Wednesdays, 4:00 p.m., UAMS Neuroradiology conference room, M1/293  
*Neuroscience Conference (Basic)*, Mondays, 8:00 a.m., UAMS 7D33  
*Neuroscience Conference (Basic & Clinical)*, Wednesdays, 4:00 p.m., UAMS 7C  
*Neurosurgery Journal Club*, 2nd & 4th Thursdays, 8:00 p.m., 2 credit hours  
*Neurosurgical Pathology Conference*, Thursdays, 4:00 p.m., VAMC-LR Neuropathology conference room, 2E141  
*OB/GYN Fetal Boards*, 2nd Fridays, 8:00 a.m., ACH Sturgis Bldg.  
*OB/GYN Grand Rounds*, Wednesdays, 7:45 a.m., UAMS Education Bldg., room G/131B  
*Ophthalmology Problem Case Conference*, Thursdays, 4:00 p.m., UAMS Jones Eye Institute, 2 credit hours  
*Ophthalmology Residency Morning Lectures*, Mondays, Wednesdays, Fridays, 7:30 a.m., UAMS Jones Eye Institute  
*Orthopaedic Basic Science Conference*, Tuesdays, 8:00 a.m., UAMS Education Bldg., room B/135  
*Orthopaedic Bibliography Conference*, Tuesdays, 8:30 a.m., UAMS Education Bldg., room B/135, 1.5 credit hours  
*Orthopaedic Fracture Conference*, Tuesdays, 7:30 a.m., UAMS Education Bldg., room B/135  
*Orthopaedic Grand Rounds*, Tuesdays, 10:00 a.m., UAMS Education Bldg., room B/135  
*Pathology Autopsy Conference*, Wednesdays, 12:00 noon, VAMC-LR Morgue  
*Psychiatry Grand Rounds*, Fridays, 11:00 a.m., UAMS Child Study Center Auditorium  
*Surgery Basic Sciences Conference*, 1st Saturday, 7:30 a.m., ACRC 2nd floor conference room  
*Surgery Grand Rounds*, Saturdays, 8:30 a.m., ACRC 2nd floor conference room  
*Surgery Morbidity & Mortality Conference*, Saturdays, 9:30 a.m., ACRC 2nd floor conference room  
*Surgery Resident Case Conference*, Saturdays (except 1st), 7:30 a.m., ACRC 2nd floor conference room  
*Trauma Morbidity & Mortality Conference*, date & time varies monthly, ACRC 2nd floor conference room  
*Urology Adult Subject Oriented Conference*, once monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Basic Sciences Conference*, 2nd Tuesdays, 5:00 p.m., VAMC-LR, 4D resident office  
*Urology Clinical Didactic Conference*, 3rd Tuesday, 5:00 p.m., VAMC-LR, 4D  
*Urology Formal Teaching (Grand) Rounds*, once or twice monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Journal Club*, once a month, 5:00 p.m., VAMC-LR, 4D  
*Urology Morbidity & Mortality Conference*, once monthly, 5:00 p.m., VAMC-LR, 4D  
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*White County Memorial Hospital Medical Staff Program*, once monthly, dates & times vary, White County Memorial Hospital, Searcy

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*GYN Conference*, 2nd Friday, 12:30 p.m., AHEC-South Arkansas  
*Internal Medicine Conference*, 1st, 2nd & 4th Wednesday, 12:30 p.m., AHEC-South Arkansas  
*Pathology Conference*, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas



*Pediatric Conference*, last Monday, 12:30 p.m., AHEC - South Arkansas  
*Pediatric Case Presentation*, 3rd Tuesday, 3rd Friday, AHEC - South Arkansas  
*Pediatric Grand Rounds*, every Tuesdays, 8:00 a.m., AHEC - South Arkansas  
*Pathology Conference*, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas  
*Obstetrics-Gynecology Conference*, 4th Thursday, 12:30 p.m., AHEC - South Arkansas  
*Surgical Conference*, 1st, 2nd & 3rd Monday, 12:30 p.m., AHEC - South Arkansas  
*Tumor Clinic*, 4th Tuesday, 12:30 p.m., AHEC - South Arkansas

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*AHEC Teaching Conferences*, Thursdays, 7:30 a.m., Washington Regional Medical Center  
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*Osteoporosis*, Saturday, May 15, 11 a.m. - 5 p.m., Holiday Inn, Fort Smith  
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*Tumor Conference*, Mondays, 12:00 noon, St. Edward Mercy Medical Center

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*Chest Conference*, 2nd Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Citywide Cardiology Conference*, 3rd Thursday, 7:30 p.m., Jonesboro Holiday Inn  
*Clinical Faculty Conference*, 5th Tuesday, St. Bernard's Regional Medical Center, Dietary Conference Room, lunch provided  
*Craighead/Poinsett Medical Society*, 1st Tuesday, 7:00 p.m. Jonesboro Country Club  
*Harris Hospital Tumor Conference*, 3rd Tuesday, 12:00 noon, Harris Hospital Conference Room  
*Independence County Medical Society*, 2nd Tuesday, 7:30 p.m., Batesville Country Club, Batesville  
*Interesting Case Conference*, 4th Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Jackson County Medical Society*, 3rd Thursday, 7:00 p.m., Newport Country Club, Newport  
*Kennett CME Conference*, 3rd Monday, 12:00 noon, Twin Rivers Hospital Cafeteria, Kennett, MO  
*Methodist Hospital of Jonesboro CME Conference*, 2nd Tuesday, 7:00 p.m., Cafeteria, Methodist Hospital of Jonesboro  
*Neuroradiology Conference*, 3rd Friday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Orthopedic Case Conference*, June 23, 7:30 a.m., Board Room, Northeast Arkansas Rehabilitation Hospital.  
*Perinatal Conference*, 2nd Wednesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Pocahontas CME Conference*, 3rd Wednesday, 12:00 noon & 7:30 p.m., Randolph County Medical Center Boardroom  
*Tumor Conference*, Thursdays, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Walnut Ridge CME Conference*, 3rd & last Tuesday, 12:00 noon, Lawrence Memorial Hospital Cafeteria  
*White River CME Conference*, 3rd Thursday, 12:00 noon, White River Medical Center Hospital Boardroom

#### **PINE BLUFF-AHEC**

*Behavioral Science Conference*, 1st & 3rd Thursday, 12:00 noon, Jefferson Regional Medical Center  
*Chest Conference*, 2nd & 4th Friday, 12:00 noon, Jefferson Regional Medical Center  
*Family Practice Conference*, 1st & 4th Tuesday, 12:00 noon, Jefferson Regional Medical Center  
*Geriatrics Conference*, 3rd Friday, 12:00 noon, Jefferson Regional Medical Center  
*Internal Medicine Conference*, 2nd & 4th Wednesday, 12:00 noon, Jefferson Regional Medical Center  
*Obstetrics/Gynecology Conference*, 2nd Tuesday, 12:00 noon, Jefferson Regional Medical Center  
*Orthopedic Case Conference*, 2nd & 4th Thursday, 12:00 noon, Jefferson Regional Medical Center.  
*Pediatric Conference*, 3rd Wednesday, 12:00 noon, Jefferson Regional Medical Center  
*Radiology Conference*, 3rd Tuesday, 12:00 noon, Jefferson Regional Medical Center  
*Southeast Arkansas Medical Lecture Series*, 4th Tuesday, 6:30 p.m., Pine Bluff County Club. Dinner meeting.  
*Surgery Conference*, 1st Friday, 12:00 noon, Jefferson Regional Medical Center  
*Tumor Conference*, 1st Wednesday, 12:00 noon, Jefferson Regional Medical Center

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*Neuro-Radiology Conference*, 2nd & 4th Tuesday, 12:00 noon, Wadley Regional Medical Center  
*Residency Noon Conference*, Tuesdays, Wednesdays and Thursdays, 12:30 p.m., AHEC-Southwest Family Practice Clinic  
*Tumor Board*, Fridays, except 5th Friday, 12:00 noon, Wadley Regional Medical Center & St. Michael Hospital  
*Tumor Conference*, every 5th Friday, 12:00 noon alternates between Wadley Regional Medical Center & St. Michael Hospital

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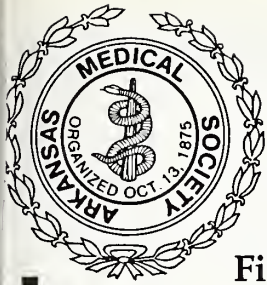
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## **Collection Strategies for the Medical Practice**

August 12, 1994 8:30 a.m.-12:00 noon

## **The Business Side of Medicine**

August 12, 1994 1:00-4:30 p.m.

## **Gearing Up for Retirement**

August 13, 1994 8:30 a.m.-4:30 p.m.

## **Preparing Your Practice for Managed Care**

September 13, 1994 8:00 a.m.-5:00 p.m.

## **CPT & ICD-9 (Family Practice, Internal Medicine)**

September 20 8:00 a.m.-5:00 p.m.

## **CPT & ICD-9 (All Specialties)**

September 21 8:00 a.m.-5:00 p.m.

## **CPT & ICD-9 (General Surgery)**

September 22 8:00 a.m.-5:00 p.m.

All seminars will be held in Little Rock, Arkansas. For further information on any of the above seminars, contact Kay Waldo at the Arkansas Medical Society office, (501) 224-8967 or 1-800-542-1058.

# Review of Thrombolytic Intervention for Acute Myocardial Infarction - Is It Valuable?

J. David Talley, M.D.\*

## ABSTRACT

Complete thrombolytic occlusion of a coronary artery has been thought to be the etiology of a acute myocardial infarction (MI) since 1912 and was proven by coronary angiography in 1980. Dissolution of the thrombus with the use of pharmacological agents has been proposed to decrease the morbidity and mortality associated with acute MI. This article reviews the historical development, pharmacology, efficacy, and complications associated with the four currently available thrombolytic agents.

In 1912, James Herrick proposed that acute myocardial infarction (MI) was due to thrombotic occlusion of the coronary artery and was not inevitably associated with a fatal outcome.<sup>1</sup> Although this view was revolutionary, it was virtually ignored for some 50 years. During the interim, the prevailing concept of the pathogenesis of acute MI revolved around gradual occlusion of a coronary artery by an atherosclerotic process with secondary thrombotic occlusion.<sup>2</sup>

Marcus DeWood settled the debate regarding the pathogenesis of acute MI in 1980 with a landmark publication which documented angiographically the presence of an intracoronary thrombus in patients with acute transmural myocardial infarction. He found that 87% of the patients who underwent cardiac catheterization within four hours of the onset of chest pain had thrombotic occlusion of the infarct-related artery. This percentage decreased to approximately 65% when the cardiac catheterization was performed within 12-24 hours after the onset of symptoms.<sup>3</sup>

Herrick's hypothesis, plus documentation that coronary thrombosis resulted in an acute MI presented investigators with the theory that thrombolytic agents

could potentially prevent or limit the extent of myocardial damage. This discussion will focus on the historical development, pharmacology, and current knowledge regarding the efficacy of the available thrombolytic agents in the United States.

## HISTORICAL DEVELOPMENT (Table I.)

Streptokinase was first described in 1933 and was initially used in a canine model. The initial application was limited by its antigenic properties and it was not investigated in humans until 1949. Urokinase is extracted from tissue culture of human kidney cells. Initial human investigation as a fibrinolytic agent was begun in 1964. Tissue plasminogen activator is a natural recurring molecule which was first described in 1947. In 1981, it was synthesized by recombinant DNA technology and underwent its initial nonhuman administration at that time. Acylated plasminogen streptokinase - activator complex (APSAC) is a combination of Group C, beta-hemolytic *Streptococcus* and pooled human plasma. It was initially administered in humans in 1982.

## PHARMACOLOGY (Table II.)

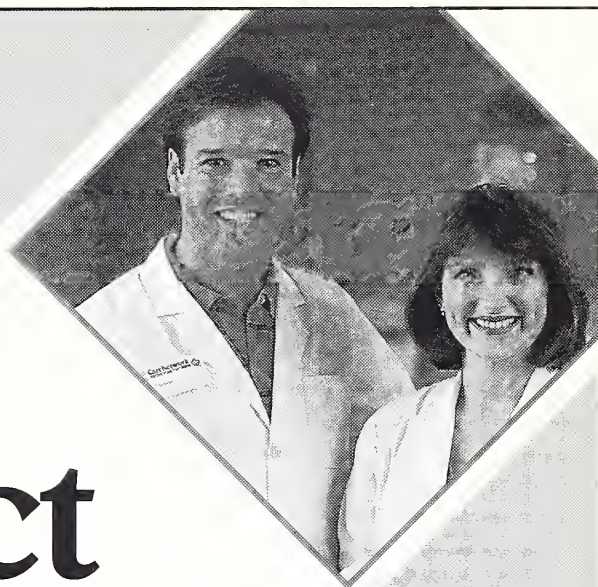
The two first generation thrombolytic agents, streptokinase and urokinase, have a similar mechanism of action. They catalyze the conversion of plasminogen to plasmin. Systemic plasmin then stimulates the conversion of fibrin to fibrin degradation products (FDPs), thereby dissolving the thrombus (Figure 1). The inherent anticoagulant ability of FDP is an interesting property of potential clinical significance. If produced in sufficient quantities, as is seen with systemic fibrinolytic agents, FDPs may act as the primary agents' own anticoagulant, thereby preventing subacute vessel reclosure.

Second generation thrombolytic agents, rt-PA and APSAC were formulated to have clot specific action.

\* J. David Talley, M.D., is Professor and Associate Director, Division of Cardiology, Chief of Cardiology, John L. McClellan Memorial Veterans' Hospital, University of Arkansas for Medical Sciences, Little Rock.



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## MECHANISMS OF ACTION OF AVAILABLE AGENTS

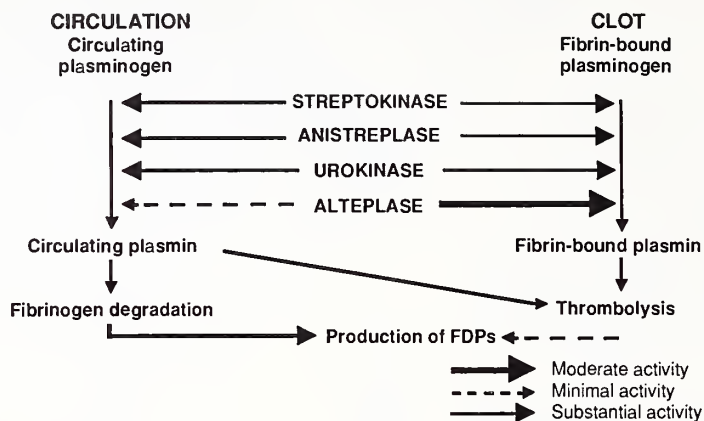


Figure 1.

Pharmacological mechanisms of action of four currently available thrombolytic agents. Note the first generation agents (Streptokinase and Urokinase) and Anistreplase all equally effect circulating and clot plasminogen. The second generation alteplase, has semi-selective action on clot bound plasminogen.

## Patency LV Function Survival

Infarct  
Related  
Artery

Left  
Ventricular  
Function

Survival

occluded  
patent

→

depressed  
maintained

→

dead  
alive

Figure 2.

Endpoints by which thrombolytic agents have been evaluated. The linkage of patency → left ventricular function → survival is known as the *open artery hypothesis*.

They activate plasminogen which is attached to fibrin, thereby possessing the theoretical advantage of having less systemic and more local action. Despite this theoretical hope, the fibrin specificity of APSAC has been disappointing. Rt-PA, on the other hand, has significant fibrin specificity and is currently the most selective thrombolytic agent available.

Due to the antigenic properties of the streptokinases (streptokinase and APSAC), repeat dosing within six months is not recommended. Urokinase and rt-PA are nonallergenic and therefore, may be readministered as needed.<sup>47</sup>

Two agents are currently available for intracoronary use. Streptokinase was initially used in this fashion in 1976 by Chazov.<sup>8</sup> The first such use in humans in the United States was by Rentrop in 1979.<sup>9</sup> Urokinase is commonly used in the catheterization laboratory to promote thrombolysis associated with acute MI or acute closure after percutaneous transluminal coronary angioplasty (PTCA). A phase II study of intracoronary rt-PA is currently being conducted at 15 centers in the United States, with enrollment expected to be completed by mid 1995. Intracoronary use for the primary treatment of acute MI is logistically difficult since intracoronary access in the catheterization laboratory must be established.

Intravenous administration can be used with all agents. Infusion related hypotension has been noted

with the streptokinases, a property which is diminished with either urokinase or rt-PA.<sup>47</sup> An appealing property of APSAC is its rapid, one-time dosing in 2-5 minutes. Rt-PA, according to manufacturer's recommendations, requires a bolus dose and completion of 100 mg infusion in three hours.<sup>7</sup> Front loaded, weight adjusted dosing with rt-PA is now popular due to the documented increased patency rates now seen. Exact guidelines for the administration of urokinase has not been established with current total dose regimens in the 1.5 to 3 million unit range.<sup>5</sup>

## DOCUMENTING EFFICACY OF CORONARY THROMBOLYSIS (Figure 2)

There are four endpoints currently used to evaluate the efficacy of coronary thrombolytic agents. The direct mechanism of action is the evaluation of coronary recanalization. This requires cardiac catheterization prior to, and after, the infusion of the agent. Although scientifically exacting, it is logistically difficult to complete such an evaluation. Coronary patency requiring only a post-infusion angiogram of the infarct related artery is less demanding, but failed to account for the approximate 10% of patients who have non-thrombogenic etiologies of the acute MI. Patency trials, however, can be performed with approximately 150-200 patients and the small sample size is



# GUSTO

## The Four Treatment Arms

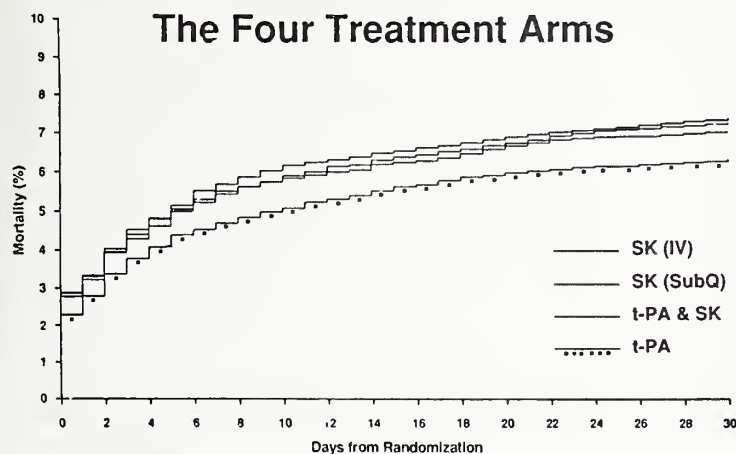


Figure 3.

Survival curves from the Global Utilization of Streptokinase and tpa for Occluded coronary arteries (GUSTO) Trial. Front-loaded, weight adjusted recombinant tpa was associated with survival benefit ( $p = 0.015$ ) for any overall difference between the treatment arms at 30 days. (From Prince CR, Talley JD: Progress in interventional cardiology. J Intervent Cardiol 1993;6:177-183, with permission.)

endpoint. Each agent has a salutary effect on left ventricular systolic function. Urokinase has been evaluated in only two trials, one of which showed an improvement in left ventricular function and the other noted no such advantage.

The mortality endpoint has also been evaluated for each agent when compared

to placebo. Streptokinase has been reported to result in a 3.7% to 10.7% in-hospital mortality with a one year mortality of 13.9%. A similar one-year mortality of 11.1% was noted with APSAC. Only one trial reported the effect on mortality with Urokinase where there was an 8% in-hospital fatal outcome. Rt-PA has been subject to numerous trials which have documented a 3.0% - 7.2% in-hospital mortality and a one year mortality of 5.9% - 7.3%.

## IN-HOSPITAL COMPLICATIONS OF CORONARY THROMBOLYSIS (Table IV.)

The indications for a procedure may be unclear until the complications are understood. The data regarding the occurrence of such untoward events is presented in Table IV.

Intracerebral bleeding is unusual with currently available thrombolytic agents and ranges from 0.4 to 0.5 with rt-PA to 1% with urokinase. Due to the systemic activation of plasminogen, fibrinogen depletion is extensive, severe, and prolonged with the use of the streptokinases (streptokinase and APSAC) and urokinase. Approximately 80% fibrinogen depletion is noted with these three agents. The use of rt-PA results in relative fibrinogen sparing with a nadir fibrinogen of approximately 30% of baseline values.

Angiographic reocclusion of a patent vessel occurs in approximately 20% of all patients and reinfarction due to reocclusion has been noted to range from 2% with urokinase to 11% with APSAC. Streptokinase and rt-PA have similar rates at approximately 4%.

## HEAD TO HEAD TRIALS (Table V-VI.)

There have been seven prospective randomized trials which have compared current available thrombolytic agents to each other. The Thrombolysis

appealing for rapid completion.

Less invasive, clinically relevant, and a logistically easier evaluation revolves around assessment of left ventricular function. This endpoint also has its drawbacks, however. There is seldom a pre-interventional assessment of left ventricular function, thereby obscuring the efficacy of the agent. It is also confounded by the ability to interpret incomplete data due to a fatal outcome. A selection may also exist in the patients who derive the greatest benefit, that of survival. Because they may be left with significant left ventricular dysfunction, their results may be biased against the intervention.<sup>10</sup> Evaluation of left ventricular function trials are a moderate sample size of approximately 350-500 patients.

The ultimate evaluation of the efficacy of the thrombolytic agents is their effect on survival. Mortality trials are logistic nightmares and require thousands of patients. Evaluation of this endpoint is made difficult by adjunctive therapy such as PTCA, coronary artery bypass graft surgery, or pharmacological treatment. Presently, these trials require approximately 40,000 patients and are usually multinational.

## EFFICACY OF CORONARY THROMBOLYSIS (Table III.)

The determining efficacy of available thrombolytic agents depend on evaluation of each endpoint, coronary patency, effect on left ventricular function, and mortality. Coronary patency trials with streptokinase have revealed efficacy ranging from 31% to 62% with a weighted mean of 42%. The highest patency noted was achieved by rt-PA with a weighted mean average of 76%. Urokinase and APSAC have similar coronary patency rates which hover in the 60% range.

Each currently available agent has also been subject to evaluation with left ventricular function as the

in Myocardial Infarction (TIMI) Phase I trial, was a recanalization study using 80 mg of double chained rt-PA over a three hour infusion. This regimen was compared to 1.5 million units of intravenous streptokinase given over one hour. The primary endpoint was recanalization using a 90 minute post infusion angiographic study. The results noted a 70% recanalization efficacy with double chained rt-PA versus 43% with streptokinase ( $p < 0.001$ ).<sup>11</sup>

The European Cooperative Study Group (ECSCG) trial compared coronary artery patency in patients treated with 0.75 mg/kg of single chained rt-PA given intravenously over 90 minutes. This was compared to 1.5 million units of intravenous streptokinase given as a one hour infusion. The primary endpoint of this trial was angiographic patency evaluated at 90 minutes post-thrombolytic agent infusion. rt-PA was associated with a 70% patency versus streptokinase with 55% patency ( $p = 0.54$ ).<sup>12</sup>

The Plasminogen Activator Italian Multicenter Study (PAIMS) trial utilized noninvasive parameters to assess reperfusion and echocardiographic evaluation of left ventricular function. Using a standard dose of 100 mg of single chained rt-PA in a three hour infusion, there was 87% patency. This was compared to 80% with streptokinase using a 1.5 million unit infusion over one hour ( $p = \text{NS}$ ). When left ventricular ejection fraction was assessed at admission and at hospital discharge, there was no change in the streptokinase group ( $50 \pm 9\% \rightarrow 51 \pm 11\%$ ,  $p = \text{NS}$ ) while an increase was noted in the rt-PA cohort ( $52 \pm 11\% \rightarrow 56 \pm 10\%$ ,  $p < 0.01$ ).<sup>13</sup>

A comparative trial evaluating the effects of single chained rt-PA and streptokinase on left ventricular function, as assessed by cineangiography three weeks after MI, was conducted by White. There was no difference in angiographic left ventricular ejection fraction between the two groups with both being 58% ( $p = \text{NS}$ ).<sup>14</sup>

The GISSI-II trial and the complimentary International TPA/Streptokinase mortality study were the first large scale direct comparisons between rt-PA and streptokinase. The endpoints of the GISSI-II trial were an evaluation comparing mortality and a composite endpoint including post infarction left ventricular function. Secondary endpoints included comparative safety data and an evaluation of the role of Heparin and aspirin treatment in thrombolysis patients. The International TPA/Streptokinase mortality study's primary endpoint was in-hospital and six month mortality. The secondary endpoint was an evaluation of the effect of thrombolysis and Heparin on mortality and safety. Heparin was given as a secondary randomization treatment as 12,500 units subcutaneously beginning 12 hours after a thrombolytic agent was used. There was no method of determining the efficacy of the anticoagulation regimen since coagulation parameters (aPTT) were not routinely measured in this study. There

was no difference in mortality between the two agents in this trial.<sup>15,16</sup>

The Third International Study of Infarct Survival (ISIS-3) randomized intravenous streptokinase in a standard dosing fashion comparing Duteplase and APSAC. Mortality at 35 days was similar between the three randomized arms and varied between 10.3% and 10.6% (Table 6).<sup>17</sup>

The results of GUSTO (Global Utilization of Streptokinase and t-PA for Occluded Coronary Arteries) have been recently published (Tables VI-VII).<sup>18,19</sup> This 26-month study comprised 41,021 patients (23,106 USA enrollment), in 1,081 hospitals (597 in the USA). The primary endpoint was 30 day mortality. Prespecified secondary endpoints included: 24 hour and 1 year mortality, in-hospital clinical events, and 30 day net clinical benefit (defined as percentage of patients who were alive at 30 days and free of an in-hospital stroke). GUSTO was powered to detect a 15% reduction in mortality or an absolute 1% difference in treatment strategies (1 life saved in 100 patients treated). All patients received 160 mg oral aspirin on the day of the MI and then 160-325 mg daily thereafter. Data was remarkably complete with 30 day follow-up available in 99.5%.

There were 4 randomized groups of thrombolytic therapies each testing a specific hypothesis: (1) *fastest patency* (weight adjusted, front loaded rt-PA with intravenous (IV) heparin), (2) *sustained patency* (streptokinase (SK) with IV heparin), (3) *early and sustained patency with decreased re-occlusion* (rt-PA + simultaneous SK with IV heparin), and (4) the "gold standard" SK therapy (SK + subcutaneous Q (subQ) heparin).

The primary results are seen in Table VI. (Figure 3). There was a significant difference between the rt-PA and other groups (6.3% vs. 7.0-7.4%,  $p = 0.015$  for any overall treatment difference). This difference appeared soon after randomization. The mortality at 24 hours was: SK (Sub Q heparin) = 2.8%, SK (IV heparin) = 2.9%, rt-PA (IV heparin) = 2.3%, and rt-PA + SK (IV heparin) = 2.8%,  $p = 0.039$  for any overall treatment difference. There were 589 strokes in GUSTO for a 1.45% event rate. All charts of patients with a stroke were reviewed by a core laboratory blinded for treatment and classified into the following groups: primary intracranial hemorrhage, cerebral infarct with hemorrhagic conversion, non-hemorrhagic stroke, and unknown etiology. Ninety six percent of the strokes were classified and 93% had brain images or autopsy data. There was a statistical difference between the combined SK groups and rt-PA (IV heparin) for primary intracranial hemorrhagic stroke (0.52% vs. 0.72%,  $p = 0.03$ ) and for the combined SK groups and rt-PA + SK (IV heparin) for any stroke (1.31% vs. 1.64%,  $p = 0.021$ ) and primary intracranial hemorrhagic stroke (0.52% vs. 0.94%,  $p < 0.0001$ ). Comparison between other groups were not different.



The concept of *net clinical benefit* was used to analyze combined mortality and stroke data. A significant risk reduction of 11.1% was noted between the combined SK groups and rt-PA (8.1% vs. 7.2%,  $p=0.006$ ).

Findings from the 2,431 patient angiographic substudy were also reported and the findings were significant.<sup>19</sup> The patients who received front-loaded, weight adjusted rt-PA had a significantly higher proportion of infarct-related artery (IRA) TIMI 3 flow compared to other groups at 24 hours. A "catch up" phenomenon was quickly seen by 180 minutes in the other treatment groups where percentage of patients with TIMI 3 flow hovered in the 40-50% range,  $p=NS$ .

There is a direct correlation between early patency, improved left ventricular (LV) function and mortality. Table VII. correlates IRA patency, LV ejection fraction, and 30-day mortality.

What did we learn from GUSTO? *First*, enhanced thrombolysis with accelerated dosing of rt-PA + IV heparin is directly associated with superior early angiographic IRA patency, improved LV function and reduced 30-day mortality compared to SK with subQ or IV heparin or the combination of rt-PA + SK with IV heparin. This finding confirms the open-artery hypothesis and the linkage between patency → LV function → mortality. *Secondly*, there was a remarkable consistence of survival benefit and decreased in-hospital clinical events in all subgroups.

Is accelerated rt-PA + IV heparin now the thrombolytic of choice for patients with acute MI? Before answering this question, one must first review the selection criteria and patient population, study methods, and results of GUSTO. First, approximately 50% of all acute MI's are of the non-Q wave variety, which were excluded in GUSTO. Additionally, only 2% of GUSTO had Killip class III or IV congestive heart failure, 88% presented for treatment in less than 4 hours, and 12% were greater than 75 years of age. While these characteristics were equally distributed in the randomized arms, they do not appear representative of a typical MI population. Secondly, compliance to the use of Sub Q heparin in the SK group was only 46.6% in the United States and 26.2% received IV heparin on the first day. Thirdly, while survival benefit was seen in the entire population, this advantage varied in certain subgroups. Patients with inferior MI's which comprised 57% of the population had a 30 day mortality of 5.3% in the combined SK arms vs. 4.7% with rt-PA. Those who presented for treatment between 4 and 6 hours from onset of treatment had less than dramatic improvement in survival with rt-PA (SK + sub Q heparin = 9.4%, SK + IV heparin = 9.8%, rt-PA + IV heparin = 9.4%, and rt-PA + SK + IV heparin = 9.0%). Finally, is it worth the cost? In an economic analysis, Mark and colleagues found that the use of rt-PA compared to streptokinase, was associated with a cost effectiveness ratio of

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\$28,777.<sup>20</sup> Similar expenditures are common in medicine and include, for example, the cost effectiveness of chronic hemodialysis.

With all these considerations aside, it does appear that accelerated thrombolysis with rt-PA with adjunctive IV heparin is the current treatment of choice for acute MI. Confirmation of this regiment is expected by the Federal Drug Administration within the next year.

## CONCLUSION

It has been approximately 80 years since Herrick initially proposed the concept of thrombotic occlusion of a coronary artery. In the last 13 years, significant strides have been made to document this hypothesis and utilize potent agents to limit the extent of myocardial necrosis after acute MI. These agents, plus mechanical methods of revascularization, have dramatically dropped the in-hospital mortality from acute MI from approximately 40% in the 1950s to 5% in the current era.

There are four currently available thrombolytic agents. The non-selective agents (streptokinase, urokinase, anistreplase) documented the efficacy of coronary thrombolysis, but due to their systemic effect and side effect profile, have been replaced with newer medications. Based on currently available data, rt-PA appears to be the most efficacious of currently available agents in achieving coronary reperfusion, improving left ventricular systolic performance and reducing mortality in acute MI.

## ACKNOWLEDGEMENTS

The author appreciates the assistance of Deborah Zupances, Tim Rice, ZoeAnn Yussman, Sharon McGregor, and Barbara Thomas in preparation of this manuscript.

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TABLE I.

## HISTORICAL DEVELOPMENT

AGENT	SK	UK	rt-PA	APSAC
1st described	1933	1957	1981 (1947)	1982
Source	Group C B-hemolytic Streptococcus	tissue culture of human kidney cell	recombinant DNA technology	group C, B-hemolytic Streptococci, and pooled human plasma
Initial nonhuman administration	1933 canine	1950's	1981 canine	mice
Initial human investigation	1946	1964	1981	1982

## Abbreviations:

SK = Streptokinase

UK = Urokinase

rt-PA = recombinant tissue type plasminogen activator

APSAC = acylated plasminogen Streptokinase activator complex

TABLE II.

## PHARMACOLOGY

	SK	UK	rt-PA	APSAC
Mechanism of action	plasminogen activation	plasminogen activation	plasminogen activation	plasminogen activation
Repeat dosing	No (6 months)	yes	yes	No (6 months)
Fibrin specificity	-	-	++	-
Dose IV	1.5-3.0 x10 <sup>6</sup> IU	1.5-3.0 x10 <sup>6</sup> IU	100 mg	30 units
Rate of administration	30-60 min	45-60 min	3 hours	2-5 minutes
Allergenic properties	yes	no	no	yes
Infusion related hypotension	yes	-	no	yes

## Abbreviations:

as in Table I

IV = intravenous

IC - intracoronary

TABLE III.

## EFFICACY OF CORONARY THROMBOLYSIS

	SK	UK	rt-PA	APSAC
Coronary patency (%) (average)	31-62 (42)	60-66 (63)	62-91 (76)	51-72 (58)
LV FX	yes	+/-	yes	yes
Mortality % in hospital (one-year)	3.7 - 10.7 (13.9)	8.0	3.0 - 7.2 (5.9-7.3)	5.6 - 6.4 (11.1)

## Abbreviations:

as in Table 1

LV FX - left ventricular function

TABLE IV.

## IN HOSPITAL COMPLICATIONS OF CORONARY THROMBOLYSIS

	SK	UK	rt-PA	APSAC
Intra-cerebral Events (%)	0.8	1.0	0.4-0.5	0.88
Fibrinogen depletion (%)	60-80	86	20-30	82-93
Reocclusion range (%)	10-29		13-24	5-17
mean (%)	14	28	17	15
Reinfarction range (%)	2.4-8.6		3.4-8.2	9.8-13
mean (%)	4.3	2.0	4.0	11.0

## Abbreviations:

SK = Streptokinase

UK = Urokinase

rt-PA = recombinant tissue type plasminogen activator

APSAC = acylated plasminogen Streptokinase activated complex

TABLE V.

## HEAD-TO-HEAD TRIALS

Trial	Ref	Primary Endpoint	Agents	Dose	Duration	Results	p Value
TIMI-1	11	90 min recanalization	dc-rt-PA SK	80 mg IV 1.5 mU IV	3 hours 1 hour	70% 43%	<0.001
ECSG	12	90 min angiographic patency	sc-rt-PA SK	0.75 mg/kg IV 1.5 m U IV	90 min 1 hour	70% 55%	=0.054
PAIMS	13	discharge clinical patency & LVFX	sc-rt-PA SK	100 mg IV 1.5 mU IV	3 hours 1 hour	87% 80% 56% 51%	NS 0.05
White	14	21 day angiographic LVFX	sc-rt-PA SK	100 mg IV 1.5 mU IV	3 hours 30 min	58% 58%	NS
GISSI-2/ International Study	15, 16	in-hospital mortality	sc-rt-PA SK	100 mg IV 1.5 m U IV	3 hours 1 hour	9.0% 8.6%	NS
ISIS-3	17	35 day mortality	SK Duteplase APSAC	1.5 m U IV 100 units 20 mg IV	1 hour 3 hours 10 min	10.5% 10.3% 10.6%	NS

## Abbreviations:

TIMI = Thrombolysis in Myocardial Infarction  
 ESCG = European Cooperative Study Group  
 PAIMS = Plasminogen Activator Italian Multi-Center Study  
 GISSI = Gruppo Italiano per lo Studio della Streptochinasi nell'Infarto Miocardico  
 dc-rt-PA = Double chain recombinant tissue plasminogen activator  
 sc-rt-PA = Single chain recombinant tissue plasminogen activator  
 NS = not significant (p>0.05)  
 min = minute  
 ISIS = Interventional Study of Infarct Survival

Others as in Table I



TABLE VI.

GUSTO: KEY RESULTS<sup>18</sup>

	SK Sub Q heparin n (%)	SK IV heparin n (%)	rt-PA IV heparin n (%)	rt-PA + SK IV heparin n (%)	Total n (%)	p Value
n =	9,796	10,376	10,344	10,327	40,843	
30 day mortality	708 (7.2)	763 (7.4)	652 (6.3)	723 (7.0)	2,846 (7.0)	0.015
Any stroke	118 (1.22)	144 (1.40)	159 (1.55)	168 (1.64)	589 (1.45)	*
30 day death or non-fatal stroke	778 (7.9)	853 (8.2)	744 (7.4)	816 (7.9)	3,191 (7.8)	†

## Notes:

- \* p = 0.021 for combined SK arms vs. rt-PA + SK (IV heparin), p = NS for all other stroke comparisons
- † p = 0.006 for combined SK arms vs. rt-PA (IV heparin), p = NS for all other death or non-fatal stroke comparisons

TABLE VII.

GUSTO ANGIOGRAPHIC STUDY<sup>19</sup>:

RELATIONSHIP BETWEEN PATENCY AT 90 MINUTES,  
LEFT VENTRICULAR FUNCTION, AND MORTALITY

	TIMI 0 at 90 min	TIMI 1 at 90 min	TIMI 2 at 90 min	TIMI 3 at 90 min	p Value
n =	232	82	276	378	
LVEF at 90 min	55.3±14.7	54.7±15.0	56.3±15.0	62.0±14.4	*
LVEF at 5-7 days	57.9±13.9	54.0±12.6	57.1±13.9	61.6±14.3	†
Mortality at 30 days	34 (9.0)		27 (7.9)	19 (4.3)	‡

## Notes:

- \* p < 0.001 between TIMI 3 vs. TIMI 0 and 1, and TIMI 3 vs. TIMI 2.
- † p = 0.001 between TIMI 3 vs. TIMI 0 and 1, and p = 0.01 between TIMI 3 and TIMI 2.
- ‡ p < 0.01 between TIMI 3 vs. combined mortality of TIMI 0 + 1, p = 0.05 between TIMI 3 vs. TIMI 2.



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# The Diagnosis and Classification of Epileptic Seizures

Gregory B. Sharp, M.D.\*

Epileptic seizures have bewildered mankind since the beginning of time. The occurrence of a generalized convulsion will always be a perplexing and frightening experience to witness especially by family members and those close to the stricken individual. Epilepsy occurs in 0.5-0.7% of the population at any given time, up to 3-4% of people will have recurrent seizures during some period of their lives, and 10% will have at least a single seizure.<sup>1-7</sup> Epilepsy is not a specific disease, but any condition in which an individual has recurrent seizures that are produced by abnormal neuronal electrical firing in the brain.

*The characteristic of the malady is the recurrence of sudden brief disturbance of some function of the brain, varying in degree, extent and character, but generally attended with an arrest of consciousness sufficient at least to interrupt the control of the muscles necessary for the maintenance of the erect posture.*

- Sir William R. Gowers, 1881

Epileptic seizures have to be differentiated from other paroxysmal events including syncope, narcolepsy and cataplexy, breath holding, hyperventilation, night terrors and other parasomnias, rage, migraine, tics, vertigo, psychogenic seizures, and many others.

Single seizures are typically symptomatic and associated with a precipitant. Examples include febrile convulsions during childhood, and seizures secondary to metabolic derangements including hypoglycemia, hypocalcemia, hypomagnesemia, hypernatremia, and hyponatremia, infection including bacterial meningitis,

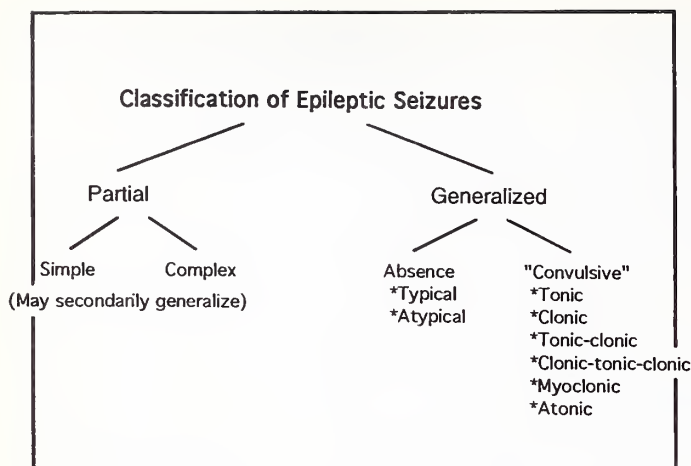
viral encephalitis, and sepsis, toxins, drug and alcohol withdrawal, eclampsia during pregnancy, or trauma. When seizures are recurrent and unprecipitated, the diagnosis of epilepsy is made.

## CLASSIFICATION OF SEIZURES

The correct classification of seizures is important in order to select the appropriate diagnostic evaluative tests and treatment. In 1904, a simple classification scheme included only four types, *grand mal*, *petit mal*, *Jacksonian*, and *psychic*.<sup>8</sup> Avoidance of using these terms is necessary to prevent misdiagnosis and confusion. Present classification is primarily based on the clinical features of the seizures and the electroencephalographic (EEG) abnormality. It is paramount to obtain a clinical history from someone other than the patient who has observed the seizures if possible. The patient is often amnesic of the events occurring during the seizure and cannot provide an adequate description. An EEG is helpful if it reveals an epileptiform abnormality, i.e. focal spike vs. generalized spike and wave, but a normal EEG does not exclude the possibility of seizures.

The primary division in classification is based on the origin of the electrical seizure discharge between **partial** (beginning with a focal onset within a unilateral region of brain) and **generalized** (produced by a bilateral and synchronous cerebral discharge) seizures. The partial seizure begins within an isolated group of neurons in a focal region of the brain, and as the discharge continues other neurons in other brain regions may join the firing pattern as the seizure spreads. Subsequently the seizure may **secondarily generalize** via spread of the electrical activity to the contralateral cerebral hemisphere with the production of a generalized convulsion. The history of an **aura** or warning perceived by the patient at the onset of the seizure indicates a focal onset. Primary generalized seizures have an acute onset without an aura or preceding clinical symptoms.

\* Gregory B. Sharp, M.D., is Assistant Professor of Pediatrics & Neurology at the University of Arkansas for Medical Sciences and Co-Medical Director, Arkansas Comprehensive Epilepsy Program (ACEP).



Partial seizures may be **simple** without alteration of consciousness or **complex** when consciousness is altered. The aura that may precede the onset of a partial seizure is actually the clinical manifestation of the onset of the focal electrical discharge. As more neurons are included in the firing pattern, the clinical seizure activity becomes more apparent. The clinical expression of the aura and the seizure are relative to the function of the involved neurons, *i.e.* frontal onset may be accompanied by contralateral tonic posturing or clonic jerking of the body or part of the body, occipital onset by visual phenomena, parietal onset by somatosensory changes  $\pm$  motor involvement, or temporal onset by confusion and unresponsiveness. Many different auras have been described. Common ones include a strange feeling of fear, a rising epigastric feeling or nausea, a foul odor or taste, dizziness, a *deja vu* experience, and numerous others. The aura is usually very stereotypical for the individual consistent with an identical epileptogenic focal origin with each seizure.

With a **simple partial seizure**, there is no alteration of consciousness and the person is aware of what is happening. There is no amnesia of events that occurred during the seizure. If alteration of consciousness occurs, then the seizure is termed **complex partial**. These have commonly been called psychomotor seizures. The alteration of consciousness is created with spread of the epileptic activity into the limbic system, usually via mesial temporal lobe structures. The temporal lobe is in fact the most common sight of origin of complex partial seizures. With these seizures, the patient commonly appears confused and bewildered, and typically exhibits **automatisms** that may include lip smacking, facial grimacing, mumbling or humming, fumbling hand movements or picking at clothing, and many others. Following the complex partial seizure, there is usually some degree of postictal confusion. An element of aphasia is common with involvement of the dominant (typically left) cerebral hemisphere. The duration of the partial seizure is typically a few minutes but may be less or more. The electrical seizure activity may

spread via the corpus callosum, anterior or posterior commissures, or other anatomical pathways to the contralateral cerebral hemisphere, and thus secondarily generalize with the production of a generalized convulsion.

**Primary generalized seizures** are heralded by an abrupt onset of a synchronous bilateral cerebral electrical epileptic discharge. There is no preceding warning or aura. These seizures may be more likely to produce accidents or injuries due to their unpredictability and spontaneous occurrence without warning. Nonconvulsive or absence seizures are differentiated from the convulsive types including tonic, clonic, tonic-clonic, clonic-tonic-clonic, myoclonic, and atonic.

**Absence seizures** are typically brief staring episodes that begin abruptly without an aura. There is a sudden cessation of activity, the clinical hallmark of an epileptic event. There may be a simple blank stare or the seizure may be accompanied by rapid eye blinking or rolling, simple automatisms, or perhaps clonic twitches of the face and/or hands. The episode is usually brief lasting seconds. There is then abrupt cessation of the seizure discharge with rapid return of consciousness without significant postictal symptoms. The individual is commonly unaware that an event has occurred. Childhood absence epilepsy has a peak onset at 6-7 years of age in an otherwise neurologically normal child. It is characterized by frequent brief episodes, commonly with several to many per day. The classical EEG finding is 3 per second generalized spike and wave discharges. During adolescence, generalized tonic clonic seizures may develop. **Atypical absence seizures** typically begin in early childhood and are frequently accompanied by generalized convulsive seizures including tonic-clonic, tonic, atonic, and/or myoclonic seizures. These children commonly have significant developmental abnormalities and seizures may be difficult to control.

The primary generalized convulsive seizures are basically variations on the same theme with the prototype being the **tonic-clonic** convulsion. These seizures begin abruptly without warning. A very fast, generalized electrical discharge produces the tonic stiffening of the trunk and extremities and a sudden loss of consciousness. As the discharge slows to a spike and wave pattern, clonic rhythmical jerking of the extremities ensues. The clonic jerking slows and then stops. These seizures are commonly brief lasting less than five minutes. Following the seizure, the patient is postictally unresponsive. A **tonic** seizure is a brief stiffening episode without the clonic phase, and likewise the **clonic** seizure consists of rhythmical jerking without the tonic phase. Occasionally seizures may begin with a few clonic jerks, followed by a tonic and then clonic phase, thus a **clonic-tonic-clonic** seizure.

**Atonic** seizures occur with an extremely abrupt loss



of muscle tone that produces a sudden fall. This often results in injury with frequent lacerations and contusion of the face and scalp.

**Myoclonic** seizures are brief, single, symmetrical jerks of the head and upper extremities that may occur in a series or cluster, commonly after awakening. There is no loss of consciousness as the associated burst of generalized polyspike and wave activity typically has a duration of less than one second.

## EVALUATION OF SEIZURES

The most important component of the evaluation of the patient with recurrent seizures or epilepsy that allows appropriate classification is the history of the event. The patient's recollection of an aura at the onset of the seizure indicates a focal or partial onset. A complete description of the seizure by an observer is most helpful.

An asymmetrical abnormal finding on the neurological examination may likely indicate partial seizure onset.

The electroencephalogram (EEG) is the most important diagnostic tool. A focal epileptiform abnormality is most likely indicative of a partial seizure and localizes the abnormal focus. Likewise, generalized spike and wave activity signifies primary generalized epilepsy. A normal EEG definitely does not exclude the clinical possibility of seizures. In fact a given EEG may be normal in an estimated 30-40% of epileptic patients. A recording obtained during wakefulness and sleep is a necessary requirement. The abnormality may only be apparent during sleep, and a recording only during wakefulness may reveal the abnormality in 30-40%. Sleep deprivation for 24 hours prior to the EEG may increase the likelihood of finding the abnormality. The negative EEG forces the clinician to rely on the clinical history to arrive at a diagnosis. The 24-hour video EEG may be definitive when the events are occurring frequently, thus allowing recording of an episode.

Neuroimaging studies are indicated in selected patients. Those with a history of trauma or other apparent insult, or a focal finding on neurological examination should have a neuroimaging evaluation. In most cases, a history consistent with a partial seizure or a focal EEG abnormality would serve as an appropriate indication. There is typically no indication for neuroimaging in a patient with a generalized epileptiform EEG abnormality and a normal exam. Most idiopathic seizure disorders begin in childhood, and new onset seizures in adults are more commonly associated with a cerebral lesion, and would therefore warrant a neuroimaging evaluation. When possible, the MRI has become the gold standard as significant lesions may be found that are inapparent on CT scans.

## SUMMARY

Appropriate classification of epileptic seizures is possible based on clinical historical, physical, and laboratory findings. Specific seizure types are more likely to respond to selected antiepileptic drugs (AED's). Correct classification allows for the selection of the appropriate AED and thus increases the likelihood of seizure control.

There are numerous epilepsy syndromes or specific types of epilepsy and their description is beyond the scope of this article. The selection of treatment and the description of presently available and future AED's will be discussed in subsequent articles.

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NOTE: This is the first of a series of articles on epilepsy to be presented in upcoming issues. The series is sponsored by ACEP, the Arkansas Comprehensive Epilepsy Program affiliated with the University of Arkansas for Medical Sciences and Arkansas Children's Hospital, and by the Arkansas Epilepsy Society. The following articles will include *The Treatment of Epilepsy: When, What, and How*; *The Treatment of Epilepsy: The New Generation of Antiepileptic Drugs*; *Driving and Epilepsy: The State of the Matter*; *Epilepsy and Pregnancy: Mother and Child*; and *The Surgical Treatment of Intractable Epilepsy*.

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# Outpatient Surveillance of Abdominal Aortic Aneurysm

Frederick A. Meadors, M.D.\*

## ABSTRACT

Rupture of abdominal aortic aneurysm (AAA) continues to be an important treatable cause of death. It is estimated that 28,000 new patients are diagnosed each year with AAA and 5,000 patients present with rupture. Health care costs escalate enormously when surgical treatment is delayed until the time of aneurysm rupture, the hospitalization is lengthy, and mortality rates are unacceptably high. Increasing physician awareness of the need for early detection and elective aneurysm repair before rupture are of clear benefit in reducing mortality from this disease.

Primary care physicians and other specialists are often the first to discover abdominal aortic aneurysms. The task becomes how to minimize the risk of AAA rupture while avoiding unnecessary surgery in patients who would have died from other causes before AAA rupture. Recent clarification of several issues, including size of the normal adult abdominal aorta, definition of aneurysm, natural history, familial tendencies, risk factors for rupture, and surgical outcome have heightened the responsibility we have to the general population in knowing who to screen and who needs surgical treatment when the screening studies are positive.

## CONCEPTS OF DISEASE

Useful working definitions of aortic aneurysm have historically varied, but this no longer need be the case. All definitions involve size estimation in centimeters or dilatation relative to the normal-sized adjacent aorta in that segment. Since rupture is a size-dependent phenomenon, at what point the aortic enlargement subjects the patient to increased risk of rupture is of paramount importance.

Initial studies suggested that aneurysms greater than 6.0 cm in diameter carried the greatest risk of rupture. Contemporary data suggests the risk begins to increase significantly when the diameter exceeds 5.0 cm. The incidence of small AAA (less than 5.0 cm) has increased tenfold over the past 30 years because of increased detection by ultrasound and CT scans. Physicians involved in the management dilemma of what to do with the small AAA frequently ponder, "how big is big enough?". Small aneurysms now account for approximately 50% of all clinically encountered abdominal aneurysms. Cronenwett has suggested, based on a longitudinal study of patients, that early surgery is preferred to watchful waiting for some patients with AAA less than 5.0 cm in diameter. This conclusion was reached based on operative risk for elective surgery (4.6% 30 day mortality) and an average rupture rate of 3.3 events per 100 patient years in patients with small AAA.<sup>1</sup>

The diameter of the normal adult abdominal aorta is smaller than what is generally perceived. In a recent comprehensive study, the normal diameter of the average male and female abdominal aorta was determined (Table 1).<sup>2</sup> This data provides a reference point in defining what constitutes aneurysmal enlargement versus dilatation or ectasia. An aneurysm is a permanent localized dilatation of an artery having at least a 50% increase in diameter compared to the expected normal diameter of the artery in question. Once the aneurysm reaches a diameter twice that of the adjacent normal-sized aorta, surgical treatment is considered.<sup>3</sup> This concept was popularized by the late Dr. E. Stanley Crawford in Houston, Texas, who, in his career, performed almost 7,000 aortic operations (all segments).

A relatively new clinical observation has been made by several authors recognizing a familial tendency with 15 - 20% of patients with an AAA having a close relative with an AAA. This tendency is even stronger if the aneurysm patient is female. Practically speaking, all first degree relatives over the age of 50 years should be considered for screening with abdominal ultrasound.

\* Frederick A. Meadors, M.D., is with the Arkansas Heart Institute, St. Vincent Infirmary Medical Center, Little Rock.

**TABLE I**  
**REPRESENTATIVE DIAMETERS OF NORMAL ADULT ABDOMINAL AORTA**

<u>Vessel</u>	<u>Sex</u>	<u>Size (Cm.)</u>	<u>Assessment Method</u>
Abdominal aorta, infrarenal	Female	1.66 - 2.16	Computed Tomography
	Male	1.99 - 2.39	Computed Tomography

Hypertension and chronic obstructive pulmonary disease are coexisting conditions which appear to hasten aneurysm growth. Outpatients with either or both of these diagnoses could be considered for screening with abdominal ultrasound.

Results from seven recent population-based studies indicate the risk of rupture for small AAA (less than 5.0 cm) is about 1% per year, compared with 5% per year for medium-sized aneurysms (5.0 - 7.0 cm), and greater than 10% per year for large aneurysms (greater than 7.0 cm).<sup>4</sup>

### EXPANSION RATES

Larger aneurysms expand faster than do smaller ones. The median expansion rate for an abdominal aortic aneurysm is 2-3 mm per year.<sup>5</sup> Approximately 20% of aneurysms expand at a rate of greater than 4 mm per year, while the remaining 80% expand more slowly. Interestingly, the risk of rupture has not been correlated with expansion rate or aneurysm length.



### DIAGNOSIS

The time honored technique of physical examination is not reliable enough to be one's sole screening and/or diagnostic method in the 1990s. Intramural calcification allows confirmation of 70 - 80% of aneurysms on lateral lumbosacral spine series.<sup>4</sup>

Ultrasound is the most commonly employed modality used to diagnose and measure AAA. The anterior-posterior diameter measurement is more reliable than the transverse diameter measurement; thus, the A-P diameter is the measurement that should be most closely observed on serial examinations.

Computerized axial tomography is very useful and the most accurate means by which to measure true aortic diameter. This study should be obtained when other causes of abdominal pain or mass must be excluded or thoracoabdominal aneurysm is suspected. Twenty-five percent of thoracic aneurysms have an abdominal component or extension.

MRI scans currently have a small role in the diagnosis or surveillance of infrarenal AAA. As it relates to aortic diseases, this modality is used primarily in the diagnosis or exclusion of thoracic aortic dissection. Clinical investigation with MRI continues and may increase its role in the future.

Abdominal aortography has been used selectively by some experts in the preoperative evaluation of patients with AAA. The author favors the use of routine preoperative arteriography as a complementary study to one of the aforementioned examinations. Important information about the aneurysm neck, branch vessel involvement, and distal run-off cannot be obtained otherwise.

State of the art management suggests that waiting for patients to present with an easily palpable pulsatile abdominal mass or back pain from aneurysm leakage excludes other at risk groups who would benefit from early detection and serial surveillance or surgical referral.

### OPERATIVE RISK

Over the past three decades, the risk of death from elective abdominal aortic aneurysm replacement has fallen from 12-15% to 2-5%. A 25-year experience with infrarenal AAA, reported by Crawford and associates, demonstrated a drop in mortality rate from 19.2% to 1.9% in spite of a tenfold increase in the number of high risk patients subjected to operation.<sup>6</sup> The advancing age of the American population appears to be increas-



ing the overall incidence of aneurysm in a group more susceptible to operative complications.

A combination of patient, surgeon, and hospital characteristics determine the operative risk and should be carefully considered before elective aneurysm repair is recommended.<sup>7</sup>

"Good risk" patients should experience an operative mortality rate of less than 5%. Those patients with unstable ischemic heart disease, severe chronic heart failure, severe COPD, or renal insufficiency have an increased operative risk and recommendations for surgery should be individualized based on aneurysm size and patient age. Of note, octogenarians have done comparatively well in most reported series from experienced centers after either elective or emergent AAA repair.

Some recent studies emphasize that "surgeon volume" and, to a lesser extent, "hospital volume" is also important in outcome. Among patients of surgeons who perform one to five AAA repairs per year, the average mortality rate is 9% compared with 4% among surgeons who perform more than 26 aneurysm repairs per year.

Hospitals performing one to five aneurysm repairs per year have an average mortality rate of 12% among patients undergoing elective repair, compared with a rate of 5% at higher-volume hospitals where more than 38 aneurysm repairs per year are performed.

Similar observations have been made in assessment of outcome following coronary artery bypass surgery in New York state. Patients appear to do better when operated upon by higher-volume surgeons in high case volume hospitals.

CONCLUSION

Drastic improvements in outcome from elective repair of abdominal aortic aneurysm have been documented in recent years. The continued abysmal surgical results in patients with ruptured AAA highlight the problem confronting us in improving the mortality of this disease and centers the solution on more aggressive early detection with surgical referral in appropriate candidates.

Mortality from ruptured AAA remains high after surgical treatment and is in excess of 50% in most series.

Current screening recommendations may include the following groups: All men more than 60 years of age, especially smokers; men with significant hypertension or

COPD; men and women over 50 years of age with a family history; and, patients with a history of previous thoracic aortic, femoral, or popliteal aneurysm.

Small aneurysms should be selectively repaired in good risk patients who demonstrate expansion or have associated aorto-iliac occlusive disease. If a nonsurgical surveillance program is pursued, followup studies

should be obtained at six month intervals the first year and annually thereafter.

Elective repair should be offered to all good risk patients with AAA greater than 5.0 cm. Poor risk patients with AAA greater than 5.0 cm should be sent to specialty centers.

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# 1993: The Year in Perspective

Jan Bunch and Bruce Thomasson  
Arkansas Department of Health

HIV disease is a continuum. It begins with initial infection and proceeds through a weakening of the immune system to eventual opportunistic infections - and to death.

Through the first decade, we have come to realize that the HIV epidemic cannot merely be characterized by AIDS case statistics. AIDS is the end stage of HIV disease. Basing our expectations, our beliefs and our decisions on AIDS case information can be misleading. The present and future of the epidemic is not accurately revealed by those who are sick, dying or dead, but by those who are more recently infected.

As we enter deeper into the second decade of the AIDS epidemic, there are changes occurring that must transform the way we perceive the problem. On January 1, 1993, the Centers for Disease Control (CDC) implemented an expanded definition for AIDS cases that improved the monitoring of the epidemic on a national level. Under this definition, any person 13 years of age or older with HIV infection and a documented weakening of the immune system, (defined as a CD4+

lymphocyte count less than 200/ $\mu$ l or with total lymphocytes less than 14 percent) became reportable as an AIDS case.

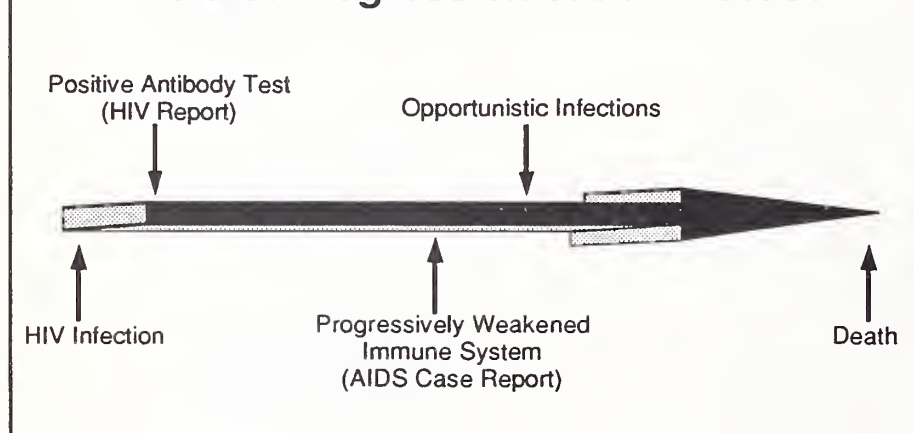
Additionally, the clinical conditions of cervical cancer, pulmonary tuberculosis and recurrent pneumonia (two or more episodes within a 12-month period) in persons with documented HIV infection were added to the 23 AIDS-defining conditions from the 1987 case definition.

This new case definition created an immediate impact in Arkansas. A record high of 102 AIDS cases was reported for the month of January. By year-end 1993, Arkansas had reported 400 AIDS cases - a 40 percent increase from 1992 - and our case rate had increased from 11.7 per 100,000 population to 16.6.

The Centers for Disease Control and Prevention had projected a national increase of 75 percent in the number of cases reported in 1993 as a result of the new definition. Instead the numbers increased from 49,016 reported in 1992 to 103,500 reported in 1993 - a 111 percent increase.

Importantly, the sharp increases in AIDS case numbers provide only a piece of the overall picture. AIDS case numbers alone tell us where the epidemic was ten years ago, at the time these people were originally infected - they do not tell us the direction or true scope of the epidemic today. Those who are now testing positive for HIV - the AIDS case numbers we will see ten years from now - provide a more current picture of HIV/AIDS disease trends. But even that picture is clouded by some limitations. It is only those who are tested and reported that give us a current picture. And

## Normal Progression of HIV Disease





while we have made great strides in closing the net on unreported cases through hospital record reviews and laboratory-based reporting, it remains a question as to whether those at risk know they should be tested and have testing readily available.

In 1993, the number of Arkansans who were reported as testing HIV-positive decreased by six percent from the previous year. Actually, the yearly total of HIV+ reports peaked back in 1991-and has gradually decreased in each subsequent year.

As we proceed deeper into the second decade of the epidemic, its direction becomes more difficult to characterize. The trail becomes more faint.

At a time when reported AIDS cases have reached all-time highs, the numbers of reported HIV-positives in Arkansas have measured small declines. So exactly where has the epidemic gone? Is there a decline in the number of new infections, or is the epidemic seeping into populations who are not being tested and reported? Is this the beginning of the end-or merely the end of the beginning?

## THE FIRST WAVE

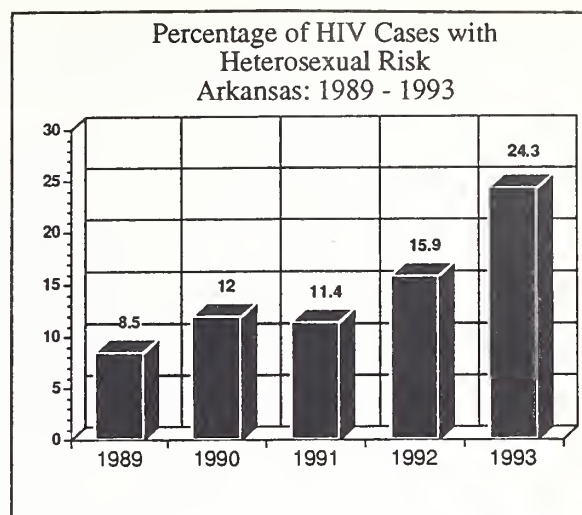
Our first experience with AIDS - the first wave of the epidemic - was among men who had sex with men and among people who had injected non-prescription drugs. It is among this group in which we are seeing slight reductions in the number of new infections.

Heterosexuals have been hesitant to accept that their behavior could place them at risk. The numbers of heterosexual infected AIDS cases were initially quite small and led to the mistaken belief that HIV would be a "gay disease". Only 7 percent of the U.S. AIDS cases and 8 percent of the Arkansas AIDS cases were infected through heterosexual contact. Evidence is growing, however, that the virus has become firmly established and is spreading at a fairly rapid pace among heterosexuals in what may well be the second wave of the epidemic.

Whereas 8 percent of Arkansas' AIDS cases are linked to heterosexual risk; 12.6 percent of our total HIV cases have been heterosexually acquired. And the rate of heterosexually acquired HIV is growing each year. Of Arkansans testing HIV-positive in 1989, only 8.5 percent were heterosexual; by 1993 that percentage had nearly tripled to 24.5 percent.

Each month we are seeing more people heterosexual infected, more females, more minorities, more teenagers and more rural Arkansans test positive. Most infected males are in their twenties and thirties, but many of the heterosexually infected females are in their teens. So far, among female cases reported in 1994, a third are teenagers.

The disease is also having a disproportionate impact on the minority community. In Arkansas, approximately 18 percent of the population is composed of ra-



cial minorities. If the epidemic was striking all races with equal intensity, 18 percent of HIV cases would be racial minorities; instead it is nearly twice that amount; 36.5 percent of HIV cases reported in 1993 were among racial minorities. Among females reported to be HIV-positive in 1994, an overwhelming 60 percent are racial minorities.

## ADDITIONAL EVIDENCE ACCUMULATES

Since 1989, the Department of Health has monitored HIV trends among childbearing women. This Survey of Childbearing Women, developed in cooperation with the Centers for Disease Control and Prevention, uses leftover blood specimens that are collected from all newborns at the time of birth. Collection is done in such a way that we know the race of the mother, the age group of the mother, county of residence of mother and quarter year of birth. No information is kept that would identify an individual - so that we are not testing persons without their consent. The test determines the HIV status of the mother—not the baby—as only about a third of babies born to an HIV positive mother will develop HIV themselves. All babies will test positive for the mother's antibodies at birth. This provides a method whereby we can monitor changes in the underlying rate of HIV infection among the heterosexual population.

Over the period of 1989-92 we maintained the information with very broad geographic areas and racial distinctions of White and Racial Minority. During this period we tested over 100,000 specimens - 99.6% of all live births in Arkansas - giving us a very broad, population based look at HIV among heterosexual Arkansans. The results were startling. Although there were almost 3 times as many specimens from White mothers; there were almost twice as many positives among

mothers who were of a racial minority. Minority mothers were six times as likely to be HIV infected.

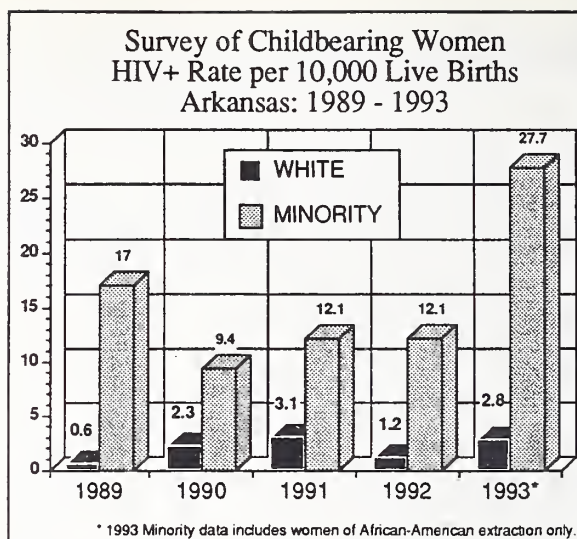
In 1993 we changed the way we were collecting this data and began to collect race as White, Black, and Other/Unknown. We also began to record area of residence by specific county.

The results were unexpected. For 1993 the rates among Black mothers was nearly twice as high as Racial Minorities had been for the period of 1989-92. Rates among White mothers increased by 25%.

Rapid changes in HIV transmission patterns have occurred and are continuing to occur. For the past five years, Arkansas has averaged more than one HIV report per day; and again, these are just persons tested and reported. HIV has been reported in every county of the state and in a typical month, one-fifth of our counties report cases. We know that the HIV is moving into minority communities and across broad geographic areas. More women and teens are becoming infected and they may not even know they are at risk. They may not know how to be tested. They may not know they need to be tested. How are we to respond?

## COMMUNITY PLANNING

A statewide planning group will be organized by the Department of Health to guide the HIV prevention activities for our state. This community planning ven-

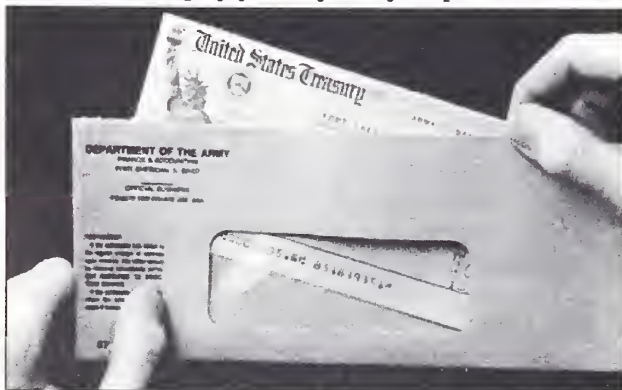


ture, envisioned by the Centers for Disease Control and Prevention, will enable the people in our state who are most concerned and active in HIV-prevention matters to decide upon priorities and prevention strategies.

It's time to sit down and take a fresh look at our successes and our failures and decide as a group how we proceed from here. As a statewide community we must work together to develop a unified strategy and prevent this epidemic from taking additional lives unnecessarily.

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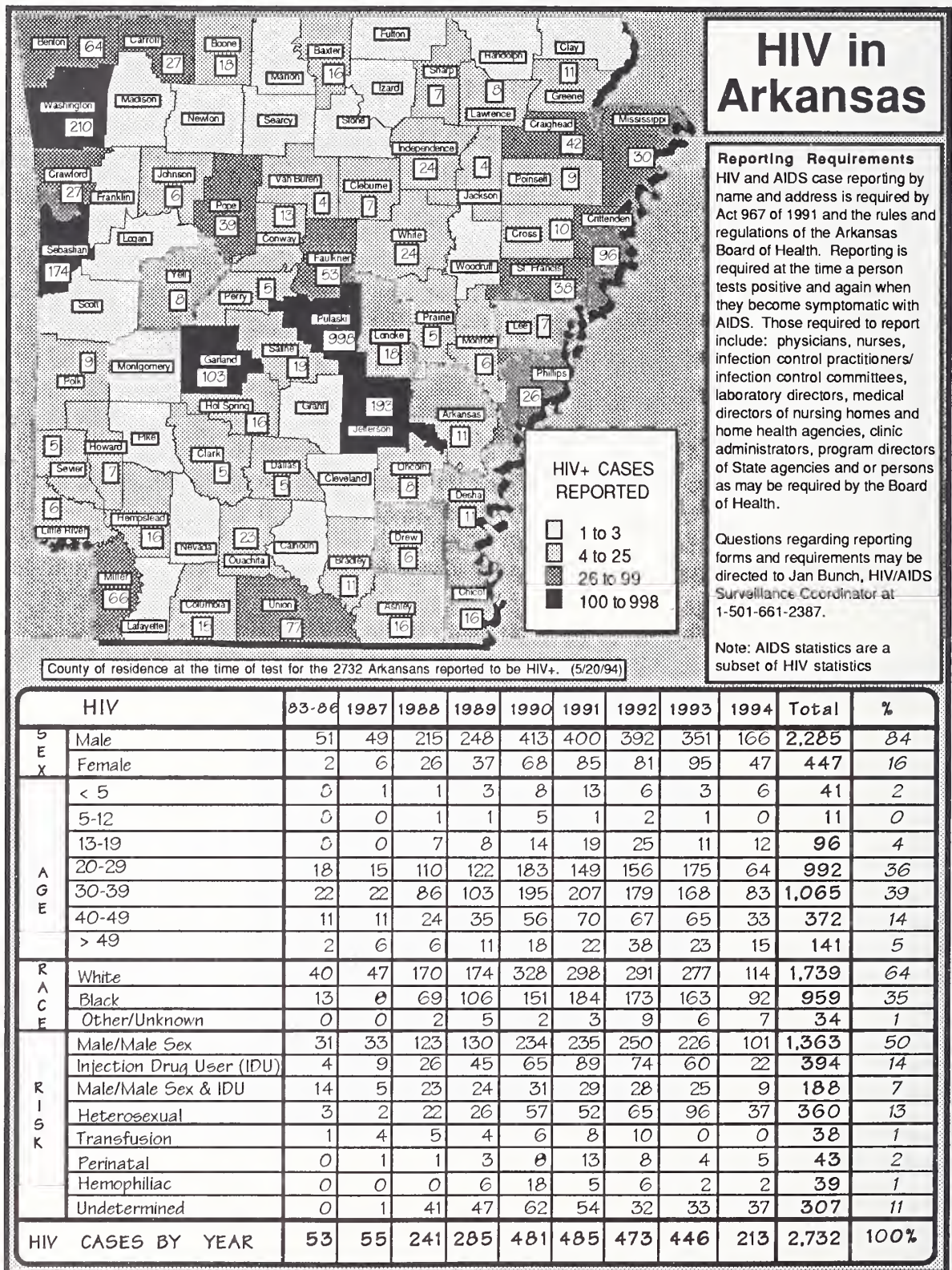
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# Arkansas HIV/AIDS Report 1983-1994

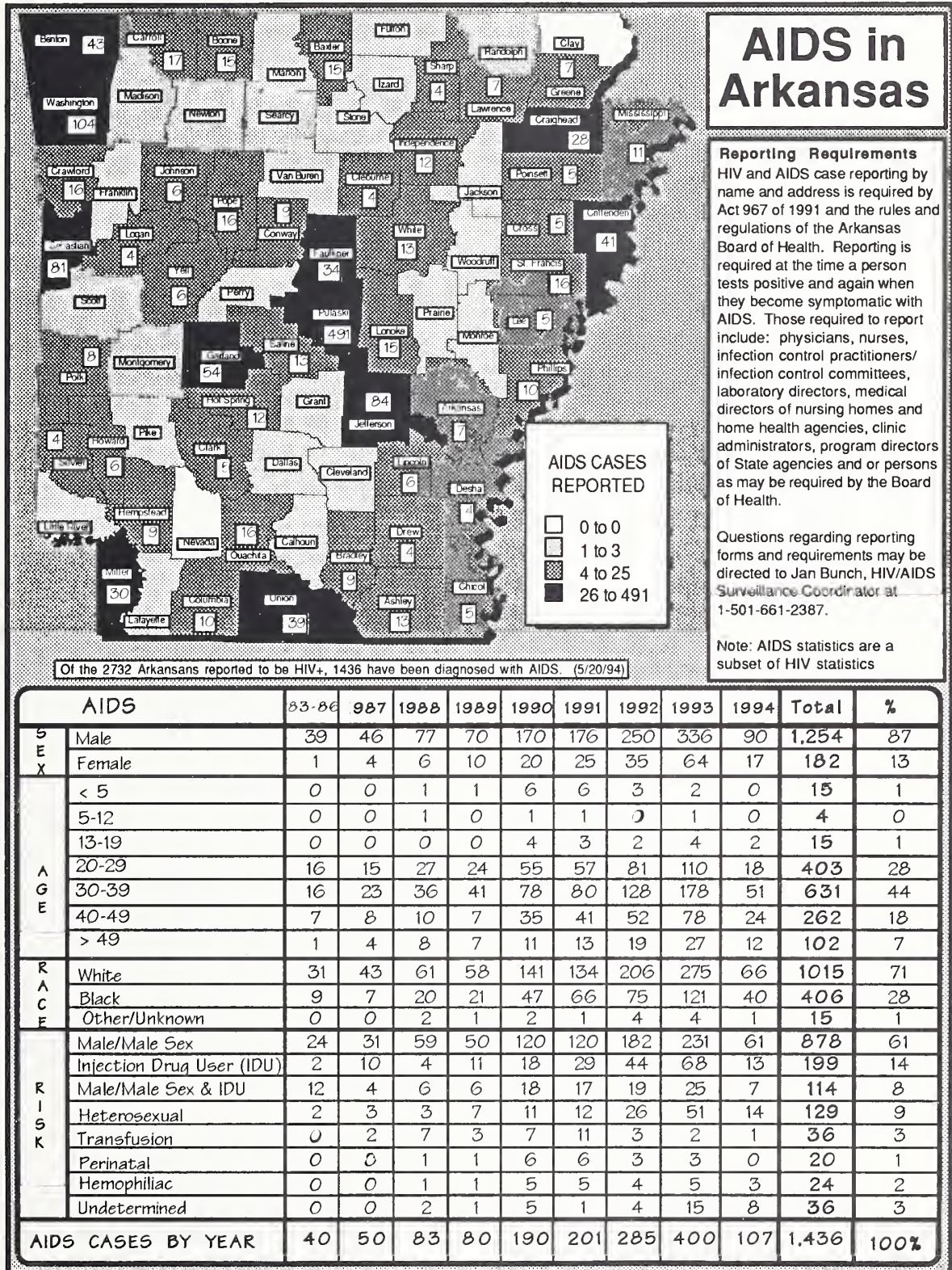


Source: AIDS Surveillance Unit, Arkansas Department of Health.



# Arkansas HIV/AIDS Report

## 1983-1994



Source: AIDS Surveillance Unit, Arkansas Department of Health.



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**Istanbouli, Wajih**, Internal Medicine. Medical education, Aleppo University - Faculty of Medicine, Aleppo, Syria, 1982. Internship/Residency, Carney Hospital, Boston, 1993.

**Moore, Trudy J.**, Radiology. Medical education, UAMS, 1980. Residency, University of Tennessee Center for Health Sciences, Memphis, 1984. Board certified.

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**Heiss, Nancy M.**, Family Practice. Medical education, UAMS, 1990. Internship/Residency, AHEC-Northwest, Fayetteville, 1994.

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**Marable, Charles T.**, Family Practice. Medical education, UAMS, 1991. Internship/Residency, Halifax Medical Center, Daytona Beach, 1994. Board pending.

**Neuwirth, Bryan R.**, Cosmetic Surgery. Medical education, University of North Carolina, Chapel Hill, 1991. Internship, Carolinas Medical Center, 1992. Residency, University of North Carolina, 1993. Board eligible.

**Parker, Ray**, Dermatology. Medical education, UAMS, 1990. Internship/Residency, UAMS, 1994. Board certified.

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**Pope, David N.**, Pathology. Medical education, UAMS, 1989. Internship/Residency, UAMS, 1994. Board pending.

**Schexnayder, Stephen M.**, Pediatric Critical Care. Medical education, UAMS, 1987. Internship/Residency, UAMS/Arkansas Children's Hospital, 1991. Board certified.

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**Travis, Theresa**, General Practice. Medical education, UAMS, 1983. Internship/Residency, UAMS, 1993.

**Yousuff, Sarah S.**, Anesthesiology. Medical education, University of Texas Medical Branch, Galveston, 1988. Internship/Residency, University of Washington, Seattle, 1992. Board certified.

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**Gorrell, Robert J., Jr.**, General Surgery. Medical education, Hahnemann University, Philadelphia, 1977. Internship/Residency, Hahnemann University, 1982.



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## SHERWOOD

**Hurlbut, Kimberly N.**, Pediatrics. Medical education, University of Texas, Houston, 1990. Internship/Residency, UAMS/Arkansas Children's Hospital, 1993. Board certified.

## RESIDENTS

**Alhariri, Mirfat**, Hematology/Oncology. Medical education, Aleppo University Faculty of Medicine, Syria, 1984. Internship/Residency, St. Barnabas Hospital, Bronx, New York, 1992. Board certified.

**Antakli, Tamim**, Cardiothoracic. Medical education, Aleppo University Faculty of Medicine, Syria, 1983. Internship/Residency, Methodist Hospital, Brooklyn, New York, 1993. Board certified.

**Arick, Carmen, L.**, Psychiatry. Medical education, UAMS, 1994.

**Broussard, Heath J.**, Medical education, LSU School of Medicine, 1994.

**Buice, Kelly S.**, Pediatrics. Medical education, Medical College of Georgia, Augusta, 1994. Internship/Residency, Arkansas Children's Hospital.

**Burton, John M.**, Family Practice. Medical education, LSU School of Medicine, 1994. Residency, Fayetteville Family Practice Residency.

**Delacey, Norbert, Jr.**, OB/GYN. Medical education, UAMS, 1994.

**Dibrell, Fredrick S.**, Medicine/Pediatrics. Medical education, University of Tennessee, Memphis, 1994. Internship, Arkansas Children's Hospital/UAMS.

**Endsley, Charolette A.**, Family Practice. Medical education, UAMS, 1994. Residency, Fayetteville Family Practice Residency.

**Harnigan, Christopher T.**, Medical education, St. Louis University School of Medicine, 1994.

**Henry, Paul M.**, Ophthalmology. Medical education, University of Tennessee, Memphis, 1992. Internship, University of Tennessee, 1993. Residency, UAMS.

**Lancaster, Shawn**, Family Practice. Medical education, UAMS, 1994.

**Lindsey, Christian D.**, Medical education, Medical College of Georgia, 1994.

**Mallory, Susan R.**, Psychiatry. Medical education, Medical College of Georgia, 1994. Internship, UAMS.

**May, Julie**, Pediatrics. Medical education, UAMS, 1994.

**Mayhew, Kathy L.**, Family Practice. Medical education, Oklahoma State University College of Osteopathic Medicine, Tulsa, 1993. Residency, Fayetteville Family Practice Residency.

**Murphy, Arlene L.**, Internal Medicine. Medical education, UAMS, 1994. Internship, UAMS.

**Noonan, Robert E.**, Family Practice. Medical education, University of Texas Health Science Center, San Antonio, 1994. Residency, Fayetteville Family Practice.

**North, Michael S.**, Family Practice. Medical education, UAMS, 1994. Residency, Fayetteville Family Practice Residency.

**Perkins, Lalita**, Psychiatry. Medical education, UAMS, 1994.

**Perkins, Richard**, Anesthesia. Medical education, UAMS, 1994.

**Pierce, Scott M.**, Family Practice. Medical education, Texas College of Osteopathic Medicine, Fort Worth, 1994. Fayetteville Family Practice Residency.

**Plumley, Spencer G.**, Anesthesia. Medical education, UAMS, 1994. Internship/Residency, UAMS.

**Richter, Jon K.**, Family Practice. Medical education, LSU School of Medicine, Shreveport, 1994. Residency, Fayetteville Family Practice Residency.

**Robertson, Donya B.**, Family Medicine. Medical education, University of Tennessee, Memphis, 1994. Internship, UAMS/AHEC-South Arkansas, El Dorado.

**Van Noy, Timothy Q.**, Pediatrics. Medical education, University of Mississippi School of Medicine, Jackson, 1994. Internship, Arkansas Children's Hospital.

**Wewers, Darin A.**, Anesthesia. Medical education, UAMS, 1994. Internship, UAMS.

**Wharton, James R.**, Dermatology. Medical education, University of South Carolina, Columbia, 1994. Internship/Residency, UAMS.

**Williams, Chrysti L.**, Family Practice. Medical education, UAMS, 1994. Residency, Fayetteville Family Practice Residency.

# FRUSTRATED?

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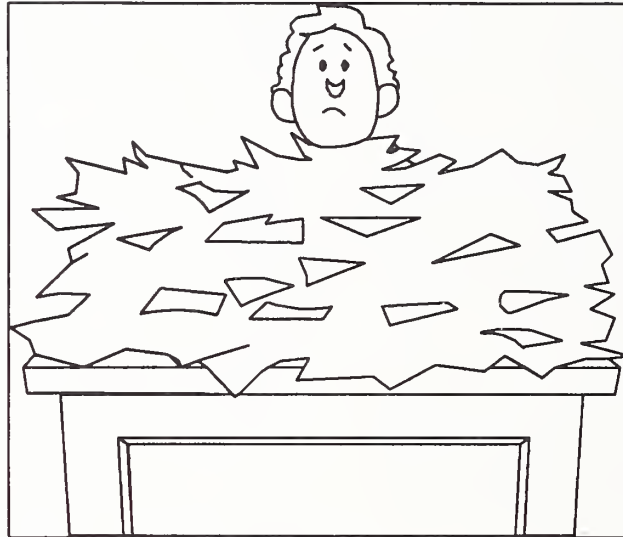
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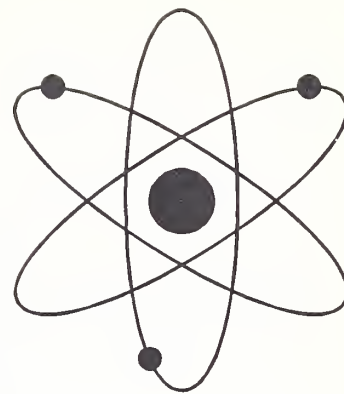
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# Radiological Case of the Month



D.L. Harshfield, M.D.  
George Holitek, M.D.  
Kelly Grigg, B.S.

## History:

A 26-year-old white male presented to the ER after a motor vehicle accident with multiple contusions and complained of right hand and wrist pain. The initial PA radiograph of the wrist appears normal and was interpreted as such (Fig. 1). Over the next six days the patient had persistent pain with limited mobility of the wrist as well as point tenderness along the dorsal aspect of the base of the thumb. A repeat set of radiographs including special views were obtained (Fig. 2,3 and 4).



*(Top left)* Figure 1: Standard PA wrist view does not suggest abnormality of the carpal bones or distal radius or ulna. Note the foreshortened appearance of the scaphoid which is made worse by the inadvertent radial deviation of the hand.

*(Top right)* Figure 2: Note how fist formation (fingers visible) with hand in ulnar deviation places the long axis of the scaphoid more parallel to the plane of the film cassette (Stecher modification). There is a suggestion of an oblique fracture.

*(Bottom left)* Figure 3: The hand is imaged still in the PA orientation while still in fist formation but raised off of the cassette to produced the equivalent of 20 degrees angulation from the standard Stecher view. The fracture is becoming more obvious with progressive elongation of the scaphoid.

*(Bottom right)* Figure 4: With the hand raised further off the cassette (still in ulnar deviation) to create approximately 30 degrees angulation from the Stecher view, the conspicuity of the fracture is maximized.



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# Scaphoid fracture.

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## Discussion:

The delayed diagnosis in this particular case is not an infrequent occurrence encountered by many of us who practice the acute episodic care rendered to emergency room and post trauma patients. This case illustrates the importance of correlating the clinical presentation with specialized radiographic techniques to arrive at a timely and accurate diagnosis. The mechanism of injury in these particular carpal fractures is due to a fall on the outstretched hand or wrist hyperextension, commonly secondary to a vehicular accident. In experimental settings, fracture of the scaphoid is most consistently produced with wrist hyperextension with the hand in a position of radial deviation. In addition, when the force occurs more distantly in the palm this results in a scaphoid fracture rather than Colles' fracture of the distal radius. Thus the history, as well as the clinical information indicating pain in the anatomical snuff box together with limited mobility of the wrist, is extremely important.

The clinical significance of this fracture is that although only two percent of all fractures involve the scaphoid, this fracture is second only to the subcapital femoral fracture in its incidence of avascular necrosis. The anatomic explanation for this is that the predominant vascular supply of the scaphoid enters through the distal aspect leaving the proximal portion of the carpal bone susceptible to avascular necrosis after fracture. There are numerous classifications for navicular fracture but the most simple method is by anatomic position. Seventy percent of fractures occur at the waist, twenty percent occur at the distal pole and ten percent occur at the proximal pole. The proximal pole will undergo avascular necrosis when the integrity of the blood supply is disrupted. For this reason the frequency of delayed union or nonunion is greatest in fractures producing ischemia of proximal pole of the scaphoid. Significant radiographic abnormalities occurring in these cases include bone sclerosis, cyst formation, resorption and subsequent osteoarthritis. Ischemic necrosis post fracture still occurs in ten to fifteen percent of cases which appear to heal normally. The incidence rises to thirty to forty percent when there is nonunion. One of the positive radiographic findings which may be seen several months after injury is an increased density in the proximal pole which has undergone avascular necrosis. The purpose of this article is to make the primary care physicians, as well as the radiologists, who perform these examinations to include special angled views to improve visualization of these fractures and thereby avoid untoward sequela associated with delayed or missed diagnoses. The standard views utilized in most practices for wrist radiography include a PA, oblique and lateral projection. When a patient presents with clinical history suggestive of navicular fracture special scaphoid views should be obtained. The standard ulnar deviation of the hand imaged in a posterior to anterior (P.A.) projection places the long axis of the scaphoid more parallel to the film. However, the scaphoid is still slightly foreshortened. Typically this so called ulnar deviation view is obtained with the hand and forearm placed flat on the cassette with the wrist in ulnar deviation. Elongation of the navicular can be further improved by adding wrist angulation with the hand in the ulnar deviated position. Making a fist with the affected hand results in approximately twenty degrees of angulation. Increasing the wrist angulation to thirty degrees noticeably improves scaphoid visibility and in this particular case was the only view in which the fracture was evident.

## References

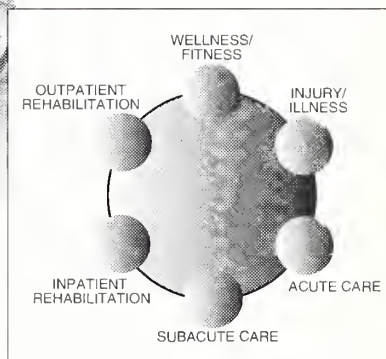
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# Medicine in the News

## Health Care Access Foundation Update

As of June 1, 1994, the Arkansas Health Care Access Foundation has provided free medical service to 7,606 medically indigent persons, received 14,610 applications, and enrolled 29,521 persons.

This program has 1,618 volunteer health care providers including medical doctors, dentists, hospitals, home health agencies, and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.

## Update of State Funded Grants

The Rural Health Services Revolving Fund, Act 620 of 1991, is an initiative to establish or retain primary care services, support the improvement of local hospitals, provide needed emergency medical services, assist in the development of transportation to medical services, and assist in the support of local community health care systems. Communities and physicians interested in applying for these funds are required to be rural and able to match the grant award on a 50/50 cash basis.

## TAKE THE FIRST STEP TO RECOVERY

The Arkansas Medical Society Physicians' Health Committee is interested in the well being of Arkansas physicians. Through effective intervention, treatment referral and monitoring of health conditions, the Physicians' Health Committee's services enable physicians to continue to deliver safe and effective patient care.

The Committee is composed primarily of physicians who "have been there" and want to help their colleagues from making a mistake.

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The Office of Rural Health requested letters of intent during September, 1993, for funding under Act 620. As a result, 82 letters were received and applications were sent to those interested in submitting a proposal for the funding cycle. The Office of Rural Health received 40 proposals and is now in the review process of the funding cycle.

The Rural Physician Recruitment and Retention Program, Act 763 of 1993, is a health care access initiative created to establish a program of financial assistance for encouraging physicians to locate and/or remain in the full-time practice of family medicine in underserved rural communities. The program provides for the award of \$50,000 over a five year period. Currently, there are 30 physicians enrolled in this program, and the ORH is anticipating the addition of six new physicians this year if funds are available.

The Rural Medical Clinic Loan and Grant Program, Act 762 of 1993, is an initiative to provide low interest loans to obstetricians, gynecologists, general pediatricians, general internists and family practice physicians to establish medical clinics in critically underserved rural areas. Funds may be used to repair or expand a building for use as a medical clinic, and for the acquisition and installation of equipment. Available funding includes both a \$7,500 loan and a \$2,500 grant for eligible communities with the loan portion being repaid at 5% interest over 10 years. For physicians up to \$12,000 is available as a loan and payable at 5% interest over 6 years.

For additional information regarding these programs contact Veronica Smith, Rural Health Specialist, ORH, (501) 661-2622.

## CareNetwork Receives Accreditation with Commendation from National Agency

CareNetwork, a home and supplemental health care agency with offices in Little Rock, Fort Smith, Hot Springs and Rogers, has been Accredited with Commendation for home care by the Joint Commission on Accreditation of Healthcare Organizations.

This is the highest level of accreditation awarded by the Joint Commission. Of some 1,400 home care organizations surveyed in 1993, only 15 percent achieved Accreditation with Commendation.

Formed in 1951, the Joint Commission is the nation's oldest and largest health care accrediting body. It is dedicated to improving the quality of health care through voluntary accreditation.



Arkansas: Opportunities are available at Springdale Memorial Hospital. Seeking BP/BC EM or PC physicians to provide services for the 25,000 annual volume ED. Double coverage. Professional liability insurance can be procured on your behalf. Remuneration starts at \$165,000. For more information about this or other opportunities, please call Cheryl Grimm at 1-800-745-5402 or send your CV to:

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#### **•Practice Opportunity•**

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Psychiatric Management Resources and North Arkansas Human Services System, Inc. seek a psychiatrist for FT or PT work in Batesville, Ark. Combination of inpt., outpt. & private practice. Great opportunity for practice growth and quality of life. Call Mary Thomas with PMR at (501) 793-8930 or voicemail (501) 373-7469. Opportunities in other locations also available.



**LITTLE ROCK, AR - FP partner** needed for busy outpatient practice in Sheridan. 30 minutes from Little Rock. Beautiful facilities, full range of service. Above average first year of salary plus production bonus. For more information contact Christine Ross, R.N., 800-776-5776.

# AMS Newsmakers

**Dr. Mitchell Collins**, a maxillofacial surgeon at Conway Regional Medical Center, has been chosen to submit an article for the September 1995 Atlas of the Oral and Maxillofacial Surgery Clinics of North America. His article is "Esthetic Nasal Evaluation and Surgical Anatomy."

**Dr. Ed Hammons**, Forrest City, was recently honored at East Arkansas Community College for 20 years of service to the school and the state. Dr. Hammons is a family practitioner.

**Dr. Mitzi Washington**, a pediatrician with the department of pediatrics at the University of Arkansas for Medical Sciences at Arkansas Children's Hospital, was recently elected as secretary-treasurer of the Central Arkansas Pediatric Society for 1994-95.



## In Memoriam

### **Roselyn Ligon Hawley**

Roselyn Ligon Hawley, of Little Rock, died Wednesday, May 25, 1994. She was 65.

She is survived by her husband, Dr. Harold B. Hawley of Little Rock; one daughter, Sylvia Goodyear of Charlotte, North Carolina; one son, George Taylor Hawley of Downers Grove, Illinois; and four grandchildren.

### **Walter H. O'Neal, M.D.**

Dr. Walter H. O'Neal, of North Little Rock, died Monday, May 30, 1994. He was 76.

He is survived by his wife, Sybil Ann O'Neal; four sons, Mark Powers O'Neal of North Little Rock, Dr. Larry L. Doss of Phoenix, Ariz., John Walter O'Neal of Atlanta, Georgia, and James Howard O'Neal of Cabot; one daughter, Cindy Sheridan of Bryant; one brother, Robert M. O'Neal of Jacksonville; nine grandchildren. He was preceded in death by two sisters, Mary O'Neal McCammon and Iris O'Neal Bowen.

Dr. O'Neal was a member of the Arkansas Medical Society Fifty Year Club.

### **Physician's Recognition Award**

The Physician's Recognition Award is awarded each month to physicians who have completed acceptable programs of continuing education. The AMS members who were recipients for the month of May are:

Allen L. Beachy	Fort Smith
Michael F. Bell	Russellville
Robert B. Casper	Little Rock
Joe H. Dorzab	Fort Smith
Wayne P. Enns	Paris
David Fried	Mena
Don G. Howard	Fordyce
Peter J. Irwin	Fort Smith
Robert L. Kerr	Mountain Home
Thomas A. Langston	Harrison
Chas. Morris McClain	Batesville
Francis M. Patton	Helena
Rheeta M. Stecker	Hot Springs
Thomas H. Wortham	Jacksonville

### **Frances Catherine Rothert, M.D.**

Dr. Frances Catherine Rothert, of Hot Springs, died Thursday, June 2, 1994. She was 97.

Survivors include one sister, Margaret Gatling of Little Rock; one sister-in-law, Mrs. Matt Rothert of Camden; three nephews, Richard Gatling of San Diego, Calif., Matthew Rothert Jr. of Holland, Michigan, and Paul Pothert of Hot Springs; and two nieces, Alice Nelson of De Rider, Louisiana and Hope Taft of Columbus, Ohio.

Dr. Rothert was a member of the Arkansas Medical Society Fifty Year Club.

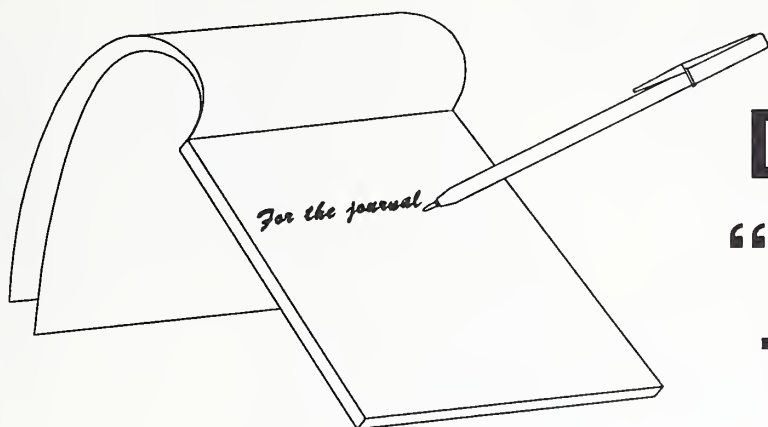
### **James Turner Smith, M.D.**

Dr. James Turner Smith, of Paris, died April 21, 1994. He was 80.

He is survived by his wife, Lucille Smith of Paris.

Dr. Smith was a member of the Arkansas Medical Society Fifty Year Club.





# DO THE "WRITE" THING!

We are always looking for interesting and informative articles for *The Journal of the Arkansas Medical Society*. *The Journal* is a good way to pass an experience you have had or important information you have learned on to your fellow medical professionals. If you would like to consider being an author for *The Journal*, below is a list of topics our readers would be interested in. Or if you have another topic that you think would be of interest to your peers, please submit it for consideration.

- Enhancing the doctor-patient relationship
- Practice management for today's physicians
- Women's health issues
- Teens and drug use
- A smokeless society
- Medical ethics and health care
- What's the value of organized medicine?
- New treatments and technology
- Physicians and managed care
- Physician stress, emotions, health
- Medicare/Medicaid issues
- Medical history of Arkansas
- A doctor's hobby
- Medicine of the future
- Improving the physician's image
- How to market your practice
- New treatments from Arkansas' medical facilities
- Coping with difficult patients

For more details, call or write:  
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Ethics of the American Medical Association (AMA)," states Dr. Lifshitz.

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# Things To Come

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## August 14-19

**New Advances in Internal Medicine: Clinical Applications.** Hyatt Regency, Monterey, California. Sponsored by the Office of Continuing Medical Education, UC Davis School of Medicine and Medical Center. Category I credit: 25 hours. For more information, call (916) 734-5390.

## August 19-21

**Southern Orthopaedic Association 1994 Annual Meeting.** The Southampton Princess, Bermuda. For more information, contact Linda Willingham at the Southern Orthopaedic Association, (205) 945-1848.

## August 28-31

**35th Annual Advanced Seminars in Dermatology.** Hyatt Regency Hotel, Incline Village, Nevada. Sponsored by the Office of CME and Dept. of Dermatology, UC Davis School of Medicine and Medical Center. Category I credit: 20 hours.

## September 17

**Parkinson's Disease.** Washington University Medical Center, St. Louis, Missouri. Sponsored by the Washington University School of Medicine. For more information, call (800) 325-9862 or (314) 362-6893.

## September 24

**Anxiety & Depression.** Washington University Medical Center, St. Louis, Missouri. Sponsored by the Washington University School of Medicine. For more information, call (800) 325-9862 or (314) 362-6893.

## September 24

**Gastroenterology and Hepatology: Update 1994.** The Westin Canal Place Hotel, New Orleans. Sponsored by Tulane University School of Medicine. For more information, call (504) 588-5466 or (800) 588-5300.

## September 29-October 1

**American Cancer Society National Conference on Prostate Cancer.** The Adams Mark Hotel, Philadelphia. For more information, call (404) 329-7604.

## October 1-2

**Ultrasound Update: 1994.** Red Lion Hotel, Sacramento, Calif. Sponsored by the Office of CME, UC Davis School of Medicine and Medical Center. For more information, call (916) 734-5390.

## October 6-9

**6th National Conference of the Society for Professional Well-Being.** Ritz Carlton Hotel, Dearborn, Michigan. Co-sponsored by the Michigan State Medical Society. For more information, call (919) 489-9167.

## October 7-10

**Peer Review Retreat.** Airlie House, Warrenton, Virginia. Sponsored by the Council of Biology Editors. For more information, call (312) 201-0101.

## October 15-17

**Comprehensive Gynecology.** Plaza Hotel, New York. Sponsored by the Center for Bio-Medical Communication. Category I credit: 13.5 hours. For more information, call (201) 385-8080.

## October 19-21

**Contemporary Cardiothoracic Surgery.** The Ritz-Carlton Hotel, St. Louis. Presented by the Division of Cardiothoracic Surgery and the Office of CME at Washington University School of Medicine. For more information, call (800) 325-9862.

## October 24-28

**Prevention in Practice: Workplace Health in the 21st Century.** Denver Marriott City Center, Denver, Colorado. Sponsored by the American College of Occupational and Environmental Medicine. For more information, call Kay Coyne at (708) 228-6850, ext. 18.

## October 27-28

**Symposium on Obstetrics & Gynecology.** Marriott Pavilion Hotel Downtown, St. Louis. Sponsored by the Washington University School of Medicine. For information, call (800) 325-9862 or (314) 362-6893.

## November 10-13

**21st Anesthesia and the Geriatric Patient.** Marriott Pavilion Hotel Downtown, St. Louis, Missouri. Sponsored by the Washington University School of Medicine. For more information, call (800) 325-9862 or (314) 362-6893.

## November 18

**Women's Healthcare Issues.** Ritz-Carlton Hotel, St. Louis. Sponsored by the Washington University School of Medicine. For more information, call (800) 325-9862 or (314) 362-6893.



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## **Thrombotic Disorders**

July 14, 12:00 noon, MCSA Conference Room #3, El Dorado. Sponsored by AHEC South Arkansas and presented by John Eidt, M.D. Category I credit offered: 1.0 hour.

## **Hepatitis C**

July 28, 12:00 noon, MCSA Conference Room #3, El Dorado. Sponsored by AHEC South Arkansas and presented by Jerry Mann, M.D. Category I credit offered: 1.0 hour.

## **Complications In Pregnancy**

August 11, 12:00 noon, MCSA Union Medical Campus Conf. #3, El Dorado. Sponsored by AHEC South Arkansas and presented by Gerald Quirk, M.D. Category I credit offered: 1.0 hour.

## **Organ Transplant**

August 25, 12:00 noon, MCSA Union Medical Campus Conf. #3, El Dorado. Sponsored by AHEC South Arkansas and presented by Beverly Ketel, M.D. Category I credit offered: 1.0 hour.

## **Pediatric and Adult Cardiac Transplant**

August 30, 12:00 noon, MCSA Union Medical Campus Conf. #3, El Dorado. Sponsored by AHEC South Arkansas and presented by James Harrell, M.D. Category I credit offered: 1.0 hour.

## **Health Reform**

September 8, 7:30 p.m. (6:30 p.m. dinner), El Dorado Country Club. Sponsored by AHEC South Arkansas and presented by Terry Yamauchi, M.D. Category I credit offered: 1.0 hour.

## **Improving the Outcome of Dysphasia/Feeding Disorders: Nutrition and Quality Improvement**

September 8-9, time to be announced, Holiday Inn West Little Rock. Sponsored by UAMS College of Medicine and presented by Alan VanBiervliet, M.D. Category I credit: 9.0 hours.

## **Nutrition & Aging X**

September 28-29, time to be announced, Excelsior Hotel, Little Rock. Sponsored by UAMS College of Medicine and presented by David Lipschitz, M.D., and Ronnie Chernoff, M.D.

## **Update in Primary Care Geriatrics Three Part Series**

Sept. 17, Oct. 15 and Nov. 12, 8:00 a.m., Washington Regional Medical Center, Fayetteville. Dates coincide with Fayetteville Razorback football games (and War Eagle Craft Fair weekend, Oct. 15). For more information, call 442-1823. For Razorback football tickets, call 1-800-982-HOGS (4647). Category I credit: 2.0 hours each session.

## **Recurring Education Programs**

*As organizations accredited for continuing medical education by the Arkansas Medical Society, the organizations named certify that these continuing medical education activities meet the criteria for the credit hours specified in Category I of the Physician's Recognition Award of the American Medical Association.*

### **FAYETTEVILLE-VA MEDICAL CENTER**

General Medical Topics, Thursdays, 12:00 noon, Auditorium, Bldg. 3

Medical Grand Rounds, Thursdays, 12:00 noon, Conference Room, Bldg. 4

### **HOT SPRINGS-AMI NATIONAL PARK MEDICAL CENTER**

Continuing Medical Education Luncheon, Aug. 12 & 26, Sept. 9 & 23, 12:30 p.m., AMI Ozark - Quapaw Room

### **LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL**

Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium

Genetics Conference, Wednesdays, 12:00 noon, Sturgis Bldg., room 457

Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom



*Pediatric Grand Rounds*, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium  
*Pediatric Neuroscience Conference*, 1st Thursday, 8:00 a.m., 2nd Floor Classroom  
*Pediatric Pharmacology Conference*, 5th Wednesday, 12:00 noon, 2nd Classroom  
*Pediatric Research Conference*, 1st Thursday, 12:00 noon, 2nd Floor Classroom

#### **LITTLE ROCK-ST. VINCENT INFIRMARY MEDICAL CENTER**

*Cancer Conferences*, Thursdays, 12:00 noon, location to be announced. Lunch provided.  
*Chest Conference*, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Sandwich buffet served  
*General Surgery Grand Rounds*, 1st Thursday, 7:00 a.m. Smith Room. Light breakfast provided.  
*GYN Surgery Cancer Conference*, 2nd Monday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
*Interdisciplinary AIDS Conference*, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
*Joint Tumor Conference*, 1st Wednesday, 12:00 noon. CARTI Auditorium. Lunch provided.  
*Journal Club*, Tuesdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
*Mental Health Conference*, 3rd Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
*Urology Grand Rounds*, 1st Tuesday, 5:30 p.m., Southwestern Bell/Arkla room. Refreshments provided

#### **LITTLE ROCK-BAPTIST MEDICAL CENTER**

*Anesthesiology Conference*, 3rd Thursday, 7:00 a.m., Conference Room 1  
*Breast Conference*, 3rd Thursday, 7:00 a.m., Conference Room 1  
*GI Conference*, 4th Friday, 11:30 a.m., Conference Room 1  
*Grand Rounds Conference*, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.  
*Pathology Conference*, 1st Tuesday, 3:00 p.m., Pathology Library  
*Pediatric Grand Rounds*, Tuesdays, 12:00 noon, Especially for Women Resource Room, 2nd floor/BMC. Category 1 credit available. Lunch provided.  
*Pulmonary Conference*, Tuesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.  
*Sleep Case Conference*, Fridays, 12:00 noon. Call BMC ext. 1902 for location. Lunch provided.

#### **NORTH LITTLE ROCK-BAPTIST MEMORIAL HOSPITAL**

*Chest & Problems Case Conference*, 3rd Wednesday, 12:00 noon, Assembly room. Lunch provided.  
*Medicine Conference*, 1st Wednesday, 12:00 noon, Assembly room. Lunch provided.  
*Surgery Conference*, 2nd Wednesday, 12:00 noon, Assembly room. Lunch provided.  
*X-ray Case Conference*, 4th Wednesday, 12:00 noon, Assembly room. Lunch provided.

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#### **LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES**

*ACRC Oncology Forum*, Thursdays, 4:00 p.m., UAMS ACRC 2nd Floor Board room, 1.5 credits  
*Anesthesia Lecture Series*, Wednesdays, 4:00 p.m., UAMS Education Bldg., room G/110 A&B  
*Anesthesia Morbidity & Mortality Conference*, Tuesdays, 6:45 a.m.; 2nd & 4th Thursdays, 4:00 p.m., UAMS Education Bldg., room G/110 A&B  
*Arkansas Blood & Cancer Society Conference*, 6th Thursday, 7:30 p.m. Terrace Restaurant, Little Rock  
*Cardiology Clinical Conference*, Mondays, 4:00 p.m., UAMS, room 3S06  
*Cardiology Graphics Conference*, Wednesdays, 12:00 noon, UAMS, room 3S06  
*CARTI North Tumor Board Cancer Conference*, 2nd Wednesday, 12:00 noon, CARTI North, Searcy  
*Cardiothoracic Surgery Conference*, date, time, & location varies  
*Cardiothoracic Surgery Monthly Journals Club*, 4th Saturday, 9:30 a.m., UAMS Surgery Dept. Library, room 2S/28D  
*Cardiothoracic Surgery Morbidity & Mortality Conference*, 2nd Saturday, 9:30 a.m., UAMS Surgery Dept. Library, room 2S/28D  
*Child Psychiatry Update/Case Conference*, 3 Fridays per month, 1:00 p.m., ACH Child Study Center conference room  
*CME Outreach Program*, dates, times & locations vary  
*Emergency Medicine Didactic Conference 1*, Thursdays, 12:00 noon. UAMS Education Bldg., room G/110A&B  
*Emergency Medicine Didactic Conference 2*, Thursdays, 1:00 p.m., UAMS Education Bldg., room G/110A&B  
*Emergency Medicine Grand Rounds 1*, Tuesdays, 3:00 p.m., UAMS Education Bldg., room B/106A&B  
*Emergency Medicine Grand Rounds 2*, Tuesdays, 4:00 p.m., UAMS Education Bldg., room B/106A&B  
*Endocrinology Case Conference*, Fridays, 7:30 a.m., ACRC 3rd floor conference room  
*Family Practice Grand Rounds*, Tuesdays, 12:15 p.m., Family Practice Center, 6th and Elm  
*Gastroenterology Grand Rounds*, Thursdays, 4:00 p.m., Gastroenterology conference room, 3D29  
*GI/Radiology Conference*, Tuesdays, 8:00 a.m., UAMS Radiology conference room, M1/293  
*Hematology/Oncology Fellow's Forum*, Fridays, 8:15 a.m., ACRC Betsy Blass conference room  
*Interhospital Urology Grand Rounds*, 1st Tuesday, 5:30 p.m., St. Vincent Arkla/Bell room  
*LR Cancer Conference*, Wednesdays, 12:00 noon, UAMS ACRC conference room three times a month, CARTI Auditorium once a month

*LR Vascular Conference*, time & date varies monthly, rotates between UAMS, SVI & BMC  
*Medicine Grand Rounds*, Thursdays, 12:00 noon, UAMS Education Bldg., room G/131A&B  
*Med/Path Conference*, 3rd or 4th Tuesday, 3:00 p.m., UAMS Shorey Bldg., room S/306  
*Medicine Journal Club*, alternate Thursdays, 7:30 a.m., ACC Medicine Clinic conference room  
*Medicine Research Conference*, Wednesdays (except 3rd), 4:30 p.m. UAMS Education Bldg. room B/135  
*Neurology Clinical Case Conference*, Thursdays, 8:00 a.m., rotates between VAMC-LR, UAMS, & ACH  
*Neuropathology Conference*, Thursdays, 9:15 a.m. VAMC-LR Pathology Dept. 1.25 credit hours  
*Neuroradiology Conference*, Wednesdays, 4:00 p.m., UAMS Neuroradiology conference room, M1/293  
*Neuroscience Conference (Basic)*, Mondays, 8:00 a.m., UAMS 7D33  
*Neuroscience Conference (Basic & Clinical)*, Wednesdays, 4:00 p.m., UAMS 7C  
*Neurosurgery Journal Club*, 2nd & 4th Thursdays, 8:00 p.m., 2 credit hours  
*Neurosurgical Pathology Conference*, Thursdays, 4:00 p.m., VAMC-LR Neuropathology conference room, 2E141  
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*OB/GYN Grand Rounds*, Wednesdays, 7:45 a.m., UAMS Education Bldg., room G/131B  
*Ophthalmology Problem Case Conference*, Thursdays, 4:00 p.m., UAMS Jones Eye Institute, 2 credit hours  
*Ophthalmology Residency Morning Lectures*, Mondays, Wednesdays, Fridays, 7:30 a.m., UAMS Jones Eye Institute  
*Orthopaedic Basic Science Conference*, Tuesdays, 8:00 a.m., UAMS Education Bldg., room B/135  
*Orthopaedic Bibliography Conference*, Tuesdays, 8:30 a.m., UAMS Education Bldg., room B/135, 1.5 credit hours  
*Orthopaedic Fracture Conference*, Tuesdays, 7:30 a.m., UAMS Education Bldg., room B/135  
*Orthopaedic Grand Rounds*, Tuesdays, 10:00 a.m., UAMS Education Bldg., room B/135  
*Pathology Autopsy Conference*, Wednesdays, 12:00 noon, VAMC-LR Morgue  
*Psychiatry Grand Rounds*, Fridays, 11:00 a.m., UAMS Child Study Center Auditorium  
*Surgery Basic Sciences Conference*, 1st Saturday, 7:30 a.m., ACRC 2nd floor conference room  
*Surgery Grand Rounds*, Saturdays, 8:30 a.m., ACRC 2nd floor conference room  
*Surgery Morbidity & Mortality Conference*, Saturdays, 9:30 a.m., ACRC 2nd floor conference room  
*Surgery Resident Case Conference*, Saturdays (except 1st), 7:30 a.m., ACRC 2nd floor conference room  
*Trauma Morbidity & Mortality Conference*, date & time varies monthly, ACRC 2nd floor conference room  
*Urology Adult Subject Oriented Conference*, once monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Basic Sciences Conference*, 2nd Tuesdays, 5:00 p.m., VAMC-LR, 4D resident office  
*Urology Clinical Didactic Conference*, 3rd Tuesday, 5:00 p.m., VAMC-LR, 4D  
*Urology Formal Teaching (Grand) Rounds*, once or twice monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Journal Club*, once a month, 5:00 p.m., VAMC-LR, 4D  
*Urology Morbidity & Mortality Conference*, once monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Pathology Conference*, 4th Thursday, 5:00 p.m., VAMC-LR, 4D  
*Urology Pediatric Conference*, once monthly, 5:00 p.m., ACH Sturgis Bldg., Clinic 2  
*Urology Pre-op/Didactic Conference*, Mondays, 5:00 p.m., VAMC-LR, 4D  
*Urology Radiology Conference*, 1st Thursday, 5:00 p.m., UAMS, Radiology Department  
*Urology Teaching Conference*, Wednesdays, 5:00 p.m., VAMC-LR, 4D  
*Urology VA Teaching Rounds*, every Friday, 7:30 a.m., VAMC-LR, 4D  
*Uro-radiology Conference (Urologic Imaging)*, 1st Tuesdays, 5:00 p.m., UAMS Radiology conference room  
*VA Chest Conference (combined Surgical/Medical Chest Conference)*, Mondays, 12:15 p.m., VAMC-LR, room 2D109  
*VA Diagnostic Imaging Conference*, Monday-Thursday, 8:00 a.m., VAMC-LR Nuclear Medicine conference room, room 1D173  
*VA GRECC/Geriatric Research Conference*, Tuesdays, 4:00 p.m., VAMC-LR, room 2D109  
*VA Hematology/Oncology Conference*, Thursdays, 8:15 a.m., VAMC-LR Pathology conference room 2E142  
*VA Lung Cancer Conference*, Thursdays, 3:00 p.m., VAMC-LR, room 2E142  
*VA Medical Service Teaching Conference*, Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68 room 130  
*VA Medicine-Pathology Conference*, Tuesday, 2:00 p.m., VAMC-LR, room 2D109  
*VA Medicine Resident's Clinical Case Conference*, Fridays, 12:00 noon, VAMC-LR, room 2D08  
*VA Physical Medicine & Rehab Grand Rounds*, 4th Friday, 11:30 a.m., VAMC-NLR Bldg. 68, room 118 or Baptist Rehab Institute  
*VA Surgery Grand Rounds*, Thursdays, 12:45 p.m., VAMC-LR, room 2D109, 1.25 credit hours  
*VA Topics in Rehabilitation Medicine Conference*, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR Bldg. 68, room 118  
*VA Weekly Cancer Conference*, Monday, 3:00 p.m., VAMC-LR, room 2E-142  
*White County Memorial Hospital Medical Staff Program*, once monthly, dates & times vary, White County Memorial Hospital, Searcy

#### **EL DORADO-AHEC**

*Behavioral Sciences Conference*, 1st & 4th Friday, 12:30 p.m., AHEC - South Arkansas  
*Chest Conference*, 3rd Wednesday, 12:30 p.m., Warner Brown Hospital  
*Dermatology Conference*, 1st Tuesdays and 1st Thursdays, AHEC - South Arkansas  
*GYN Conference*, 2nd Friday, 12:30 p.m., AHEC-South Arkansas  
*Internal Medicine Conference*, 1st, 2nd & 4th Wednesday, 12:30 p.m., AHEC-South Arkansas  
*Pathology Conference*, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas



*Pediatric Conference*, 3rd Friday, 12:30 p.m., AHEC - South Arkansas  
*Pediatric Case Presentation*, 3rd Tuesday, 3rd Friday, AHEC - South Arkansas  
*Arkansas Children's Hospital Pediatric Grand Rounds*, every Tuesdays, 8:00 a.m., AHEC - South Arkansas (Interactive video)  
*Pathology Conference*, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas  
*Obstetrics-Gynecology Conference*, 4th Thursday, 12:30 p.m., AHEC - South Arkansas  
*Surgical Conference*, 1st, 2nd & 3rd Monday, 12:30 p.m., AHEC - South Arkansas  
*Tumor Clinic*, 4th Tuesday, 12:30 p.m., AHEC - South Arkansas

#### **FAYETTEVILLE-AHEC NORTHWEST**

*AHEC Teaching Conferences*, Tuesdays & Wednesdays, 12:00 noon, Washington Regional Medical Center  
*AHEC Teaching Conferences*, Fridays, 12:00 noon, Washington Regional Medical Center  
*AHEC Teaching Conferences*, Thursdays, 7:30 a.m., Washington Regional Medical Center  
*Medical/Surgical Conference Series*, 4th Tuesday, 12:30, Bates Medical Center, Bentonville  
*Primary Care Conferences*, 1st & 3rd Mondays, 12:00, every Tuesday 7:30 a.m., Washington Regional Medical Center

#### **FORT SMITH-AHEC**

*Gastroenterology Conference*, 3rd Tuesday every other month, 7:00 a.m., St. Edward Mercy Medical Center  
*Neuroradiology Conference*, 3rd Wednesday, 12:00 noon, St. Edward Mercy Medical Center  
*Neuroradiology Conference*, 1st Tuesday, 11:30 a.m., Sparks Regional Medical Center  
*Sparks Tumor Conference*, Thursdays, 12:00 noon, Sparks Regional Medical Center  
*Tumor Conference*, Mondays, 12:00 noon, St. Edward Mercy Medical Center

#### **JONESBORO-AHEC NORTHEAST**

*AHEC Lecture Series*, 1st & 3rd Tuesday, 12:00 noon, Stroud Hall, St. Bernard's Regional Medical Center. Lunch provided.  
*Arkansas Methodist Hospital CME Conference*, 7:30 a.m., Hospital Cafeteria, Arkansas Methodist Hospital, Paragould  
*Chest Conference*, 2nd Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Citywide Cardiology Conference*, 3rd Thursday, 7:30 p.m., Jonesboro Holiday Inn  
*Clinical Faculty Conference*, 5th Tuesday, St. Bernard's Regional Medical Center, Dietary Conference Room, lunch provided  
*Craighead/Poinsett Medical Society*, 1st Tuesday, 7:00 p.m. Jonesboro Country Club  
*Harris Hospital Tumor Conference*, 3rd Tuesday, 12:00 noon, Harris Hospital Conference Room  
*Independence County Medical Society*, 2nd Tuesday, 7:30 p.m., Batesville Country Club, Batesville  
*Interesting Case Conference*, 4th Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Jackson County Medical Society*, 3rd Thursday, 7:00 p.m., Newport Country Club, Newport  
*Kennett CME Conference*, 3rd Monday, 12:00 noon, Twin Rivers Hospital Cafeteria, Kennett, MO  
*Methodist Hospital of Jonesboro CME Conference*, 2nd Tuesday, 7:00 p.m., Cafeteria, Methodist Hospital of Jonesboro  
*Neuroradiology Conference*, 3rd Friday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Orthopedic Case Conference*, June 23, 7:30 a.m., Board Room, Northeast Arkansas Rehabilitation Hospital.  
*Perinatal Conference*, 2nd Wednesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Pocahontas CME Conference*, 3rd Wednesday, 12:00 noon & 7:30 p.m., Randolph County Medical Center Boardroom  
*Tumor Conference*, Thursdays, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Walnut Ridge CME Conference*, 3rd & last Tuesday, 12:00 noon, Lawrence Memorial Hospital Cafeteria  
*White River CME Conference*, 3rd Thursday, 12:00 noon, White River Medical Center Hospital Boardroom

#### **PINE BLUFF-AHEC**

*Behavioral Science Conference*, 1st & 3rd Thursday, 12:00 noon, Jefferson Regional Medical Center  
*Chest Conference*, 2nd & 4th Friday, 12:00 noon, Jefferson Regional Medical Center  
*Family Practice Conference*, 1st & 4th Tuesday, 12:00 noon, Jefferson Regional Medical Center  
*Geriatrics Conference*, 3rd Friday, 12:00 noon, Jefferson Regional Medical Center  
*Internal Medicine Conference*, 2nd & 4th Wednesday, 12:00 noon, Jefferson Regional Medical Center  
*Obstetrics/Gynecology Conference*, 2nd Tuesday, 12:00 noon, Jefferson Regional Medical Center  
*Orthopedic Case Conference*, 2nd & 4th Thursday, 12:00 noon, Jefferson Regional Medical Center.  
*Pediatric Conference*, 3rd Wednesday, 12:00 noon, Jefferson Regional Medical Center  
*Radiology Conference*, 3rd Tuesday, 12:00 noon, Jefferson Regional Medical Center  
*Southeast Arkansas Medical Lecture Series*, 4th Tuesday, 6:30 p.m., Pine Bluff County Club. Dinner meeting.  
*Surgery Conference*, 1st Friday, 12:00 noon, Jefferson Regional Medical Center  
*Tumor Conference*, 1st Wednesday, 12:00 noon, Jefferson Regional Medical Center

#### **TEXARKANA-AHEC SOUTHWEST**

*Chest Conference*, every other 3rd Wednesday, 12:30 p.m., St. Michael Hospital  
*Neuro-Radiology Conference*, 2nd & 4th Tuesday, 12:00 noon, Wadley Regional Medical Center  
*Residency Noon Conference*, Tuesdays, Wednesdays and Thursdays, 12:30 p.m., AHEC-Southwest Family Practice Clinic  
*Tumor Board*, Fridays, except 5th Friday, 12:00 noon, Wadley Regional Medical Center & St. Michael Hospital  
*Tumor Conference*, every 5th Friday, 12:00 noon alternates between Wadley Regional Medical Center & St. Michael Hospital

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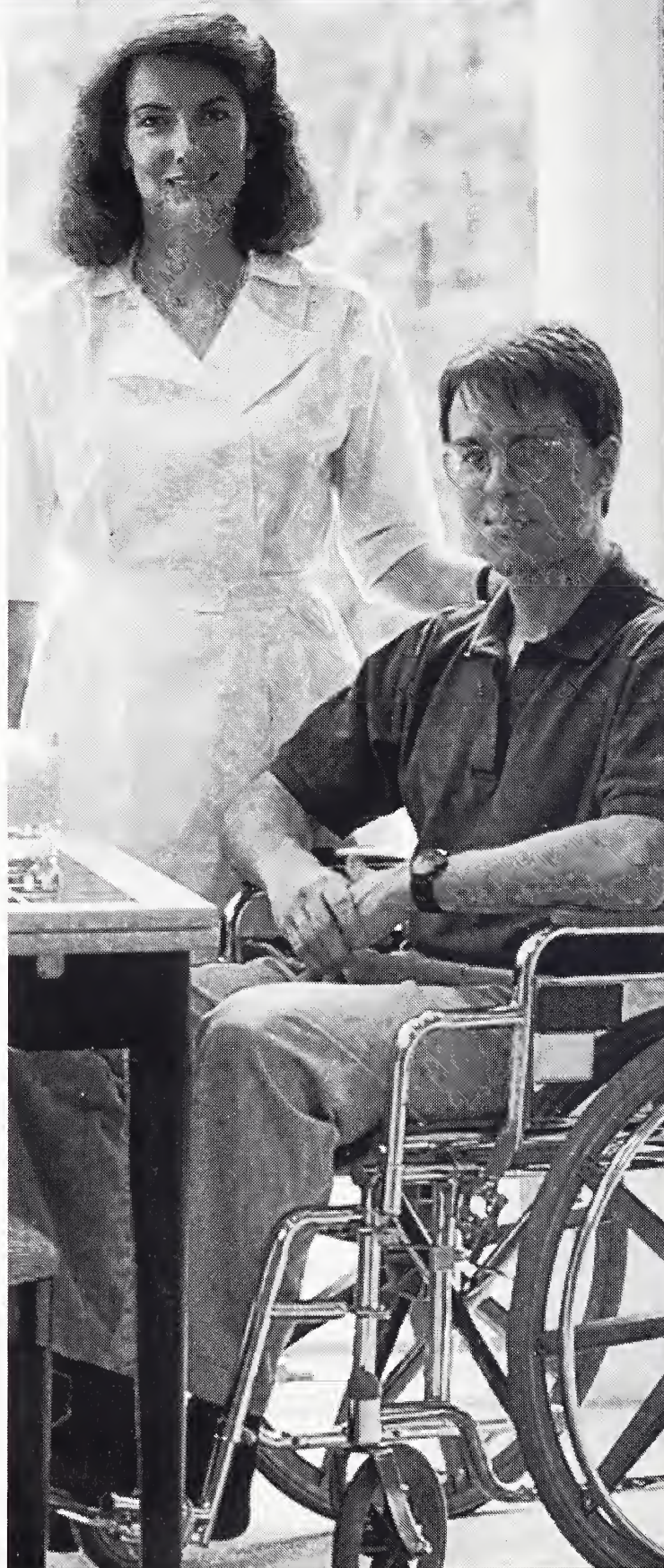
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# Vaccines for Children Program

Sandra B. Nichols, M.D.  
State Health Officer  
Director, Arkansas Department of Health

Vaccines are the most powerful and cost-effective ways to prevent nine infectious diseases in children. Although over 96 percent of children are adequately vaccinated by kindergarten, about 15 to 35 percent of children under age two are inadequately protected against these childhood diseases. The Childhood Immunization Initiative has been launched to make sure that children do not become sick or die from vaccine-preventable disease. Specific and urgent goals to be accomplished by 1996 are to:

- reduce most diseases preventable by childhood vaccination to zero.
- increase vaccination levels for two-year-old children to at least 90 percent for the initial and most critical doses in the vaccine series, and 70 percent for a more recent vaccine (hepatitis B).
- build a vaccine delivery system to maintain these achievements in the United States.

To address these goals, Congress established the Vaccines for Children (VFC) program, a federally funded and state operated vaccine supply program that will begin October 1, 1994. The program will supply - at no cost to all public health care providers and to private health care providers who agree to participate - federally purchased vaccine to be administered to children in certain groups.

## CHILDREN ELIGIBLE FOR THE VFC PROGRAM

The VFC program was created to meet the vaccination needs of children from birth through 18 years of age.

Children eligible to receive VFC-provided vaccines include the following: children enrolled in Medicaid;

children who do not have health insurance; and children who are American Indian or Alaskan Native.

In addition, children who have health insurance that does not cover vaccine can receive VFC-provided vaccines at federally qualified health centers (community/migrant health centers) and rural health clinics.

## PRIVATE PROVIDER ENROLLMENT

To participate in the VFC program, providers need to agree to:

- screen the parent or guardian to determine the child's eligibility (verification is not required).
- maintain a record of this screening with the eligible child's record.
- follow the recommended immunization schedule as established by the National Advisory Committee on Immunization Practices (ACIP) and state law (individual medical judgment may be exercised).

*Note: The American Academy of Pediatrics schedule conforms with the ACIP recommendations.*

- not charge for the VFC-supplied vaccine (an administration fee, to be established by the Health Care Financing Administration, can be charged so long as immunization is not denied because the fee cannot be paid).
- provide vaccine information materials as prescribed by law (required of all providers regardless of their enrollment status in the VFC program).

To enroll, the provider agrees to participate in the program and follow specific state requirements. The signed one-page provider enrollment agreement will be kept on file at the Department of Health, which will administer the VFC program in Arkansas.

- A private provider is not required to accept a child into his or her practice or clinic merely because the child is eligible for immunization through the VFC program.
- A private provider may participate in the VFC program without being a Medicaid provider.

## VACCINE ORDERING AND SUPPLY

Once enrolled in the VFC program, private health care providers will complete a simple one-page "Provider Profile." The profile will be retained by the Health Department to determine the number of patients expected to be seen for immunization services and the percentage of patients in the provider's practice that may be eligible for immunization through the VFC program.

The VFC program will provide a ready inventory of federally purchased vaccine to the private provider and will eliminate some upfront costs in providing vaccine to eligible children. Methods used to account for vaccine use will be determined by the Health Department.

The system that health care providers use to purchase vaccine for their private-pay patients will re-

main unchanged.

Currently, the vaccines and combination vaccines offered with the VFC program are those providing protection against nine diseases:

- diphtheria
- Haemophilus influenzae type b
- hepatitis B
- measles
- mumps
- pertussis
- poliomyelitis
- rubella
- tetanus

New and combination vaccines such as DTaP and DTP/Hib will be supplied to providers through this program. As new and combination vaccines are approved by the FDA and recommended by the ACIP, they will be added to the program.

The VFC program is a critical component of the President's Childhood Immunization Initiative to adequately vaccinate 90% of two-year-old children in this country. To achieve the 90% rate in two-year-olds in Arkansas will require new and additional collaborative efforts between public and private health care providers. The Arkansas Department of Health encourages participation and is currently recruiting providers for the VFC program. For more information, or to enroll in the program, call 1-800-574-4040. ■



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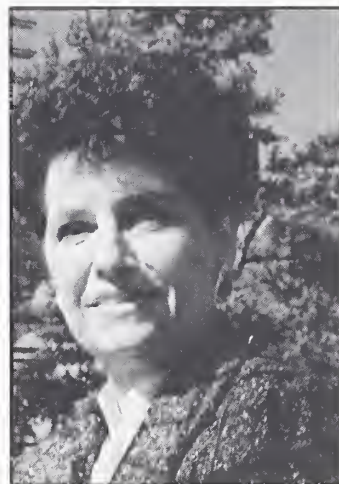
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# Arkansas State Spinal Cord Commission

Pamela S. Brown, M.D.\*

The prevalence of spinal cord injury patients in the United States is estimated at 120,000-150,000 individuals, with approximately 150 new spinal cord injuries occurring each year in Arkansas. Until World War II, the average life expectancy for a spinal cord injured patient was 6-12 months post injury with up to 80% of patients dying in the first two weeks. This short life expectancy was secondary to sepsis from kidney or bladder infections or pressure sores. Since about 1940, the life expectancy of spinal cord patients has improved significantly so that it now approaches that of the average population. This improved life expectancy reflects not only the advent of antibiotics and improved management of medical problems, but the initiation of a more comprehensive continuum of care from the acute onset of injury to discharge into the community and long-term follow-up. The development of the resources and networks to provide comprehensive care for spinal cord injury has been a major goal for the Arkansas Spinal Cord Commission since its inception.

Initially in the United States, the Veterans Administration was the leader in the development of a system of comprehensive care for spinal cord injured individuals. However, this was only available to veterans. With the passage of the Rehabilitation Act of 1973, the Rehabilitation Services Administration began setting up a system of regional spinal cord injury centers to provide the same comprehensive rehabilitation services to civilians and to explore and develop new treatment and rehabilitation methods for spinal cord injured patients. Efforts to improve the care of the spinal cord injured in Arkansas began in the 1950's. One of the pioneers of this effort was Mrs. Jane Smith whose mother was quadriplegic from a spinal cord injury due to a motor vehicle accident in

1957. When Mrs. Smith brought her mother home from the hospital, she was told by her doctors in Memphis that they had nothing to offer her mother, and she should just be made comfortable until she died. Mrs. Smith became familiar with rehabilitation of spinal cord injury through Dr. Howard Rusk at the New York Institute in New York where Mrs. Smith's mother eventually received her rehabilitation. When Mrs. Smith returned to Arkansas, she began her tireless battle to make citizens in Arkansas aware of the plight of the spinal cord injured in this state and to organize them to deal with it. In 1962 the Arkansas Rehabilitation Service opened the Hot Springs Rehabilitation Center, a vocational rehabilitation facility. In 1972, one of the first meetings to discuss how to improve the quality of care for spinal cord injured was held at the Hot Springs Rehabilitation Center. At this time vocational rehabilitation was available in Arkansas but few spinal cord injured individuals could participate because of the lack of basic rehabilitation to help them achieve functional independence. This meeting was organized by Jane Smith in hopes of establishing a regional spinal cord facility through federal funds. This was followed in 1973 by a meeting hosted by Betty Bumpers (then First Lady of Arkansas). With this meeting, the Spinal Cord Injury Task Force of the Arkansas League of Nursing developed to conduct a survey of SCI in Arkansas.

Later in 1972, with the support of Mary Switzer (Commissioner of Rehabilitation Service Administration [RSA]), Corbett Ready (Deputy Commissioner of the United States Rehabilitation Services Administration) met with Russell Baxter (Arkansas Rehabilitation Commissioner), and several Arkansas legislators and Rehabilitation personnel. This led to the Arkansas Division of Rehabilitation Services being awarded an R.S.A. innovation and expansion grant of \$250,000/year to provide comprehensive services to the spinal cord injured in Arkansas. This project, funded from

\* Pamela S. Brown, M.D., is Associate Professor at the University of Arkansas for Medical Sciences, Little Rock.



1975-1978, helped to establish a spinal cord injury registry through the passage of State Law 330 (1977) requiring all physicians and public agencies to report any new spinal cord injured individuals they treat. It also helped establish interagency linkages to facilitate care and rehabilitation of spinal cord injured individuals by establishing rehabilitation field counselors throughout the state. These counselors obtained referrals for spinal cord injured individuals within their assigned region, provided counseling, maintained family communication and monitored client progress while the patient was in acute, intermediate care and vocational rehabilitation. They helped to identify the needs of their spinal cord injured clients and to direct them to the agency or facility where these needs could be met.

In 1974, Dr. Howard Rusk addressed the Arkansas Legislative Council at the State Capitol. He spoke of the benefits of rehabilitation of the spinal cord injured. With this added impetus in 1975 the Arkansas State Senate and House of Representatives passed Act 311 to establish the Arkansas State Spinal Cord Commission. This was the first state agency in the United States to be responsible solely to individuals with spinal cord injuries. In July 1975 the first Arkansas State Spinal Cord Commission was given the

oath of office at the State Capitol by Governor Pryor. Its original members were Dr. Robert Bost, Dr. Stevenson Flanigan, Dr. Thomas Durham, Mrs. Jane Smith, Mrs. Patricia Birch, Miss June Garner, Dr. John Bowker, Harold Thomas, Marshall Purvis, and Russell Baxter. This commission was responsible directly to the governor's office and had administrative services provided by Rehabilitation Services. The Arkansas State Spinal Cord Commission was never under the Vocational Rehabilitation Service, although they did share a close partnership.

At the beginning, the Spinal Cord Commission had little or no personnel, equipment, or offices. With the assistance of the University of Arkansas Research and Training Center, the Regional Rehabilitation Continuing Education Program and Russell Baxter, they were able to establish legislative mandates to begin operating as a state agency within several months.

In parallel with those working with the State and Federal Government to provide funding and legislation to improve care for spinal cord injured, others were working at the hospital level. Dr. Stevenson Flanigan (Professor of Neurosurgery at the University of Arkansas for Medical Sciences [UAMS]) provided medical management for many spinal cord injured in Arkansas as well as training many of the

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neurosurgeons who established practices throughout the state. Leadership afforded by Mr. Russell Baxter, Commissioner for Rehabilitation Services, established an additional grant, funded by R.S.A. With that money, and the then dean for the College of Medicine, Tom Bruce, M.D., established an office for the development of rehabilitation medicine for the colleges. Dr. Flanigan was Director for that office. He also worked closely with regional spinal cord case managers to identify spinal cord patients experiencing problems. During the 1970's, a few complex spinal cord injured patients who could not be handled at UAMS, Hot Springs Rehabilitation Center, or other facilities in the state, were transported to the Texas Institute of Rehabilitation and Research in Houston, the Regional Model System facility. However, this situation improved when the Arkansas Rehabilitation Service granted Baptist Medical Center in Little Rock funds to assist in equipping a rehabilitation hospital to provide intermediate care and rehabilitation for spinal cord injured patients. This effort led by John Gilbreath, then Administrator of Baptist Medical System, and Russell Baxter, brought about the establishment of the Arkansas Rehabilitation Institute in 1975.

Over the years the spectrum of services provided by the Spinal Cord Commission has grown and continues to grow. Using a case management program to serve their clients, they now have 13 case managers throughout the state. Each case manager makes contact with their client initially within the acute care hospital after that patient has been reported to the Spinal Injury Central Registry as required by law. Within the hospital a social history is obtained to help determine what services a client may need and be eligible for. Basic information about spinal cord injury is also relayed to the client. The case manager will continue to follow the client when he goes to a rehabilitation hospital, often assisting as needed in discharge planning to home. The case manager may help in obtaining adaptive equipment, Medicaid, and State Supplemental Income, finding accessible housing and assisting with the purchase of medically prescribed equipment and supplies. The case managers will continue lifelong follow-up and regular home visits to evaluate the clients' physical abilities, living situation and needs as they change with time. In 1993 case managers made over 6,953 client contacts in 75 counties.

Clients who meet medical and financial eligibility criteria may often obtain purchased services through the Spinal Cord Commission when similar benefits through insurance coverage has been exhausted. This includes medically prescribed equipment such as wheelchairs, braces, wheelchair cushions, adaptive bathroom equipment, medical supplies, medications, and home modification such as ramps,

outpatient clinic and therapy visits, and short term attendant care. In fiscal year 1993 the Arkansas State Spinal Cord Commission spent \$343,498 on purchased services. Since 1981, the Spinal Cord Commission has provided funds to obtain in home personal care assistance to quadriplegic clients who meet eligibility criteria. In 1993, 17 clients received approximately 18 hours of care per week from attendants assisting in such activities of daily living as hygiene, meals, dressing and transferring in and out of bed. The annual average cost was \$4,451 per client, which is approximately 25% of the cost of maintaining these clients in a nursing home.

Other program services of the Arkansas State Spinal Cord Commission include weekly spina bifida clinics at Arkansas Children's Hospital. These clinics provide multidisciplinary medical care for spina bifida and SCI patients as well as education and training about spina bifida for these patients and their parents. Along with MedCamps of Arkansas and Camp Aldersgate, the Spinal Cord Commission helps sponsor one week of overnight camp for children and adolescents ages 6-16 with spina bifida and other spinal cord disabilities.

Beyond improving care for individuals with spinal cord injury, the Spinal Cord Commission has obtained grant money to establish prevention programs. In 1992 representatives from the Arkansas Spinal Cord Commission as well as individual clients participated in 212 presentations to 26,242 junior and senior high school students through the Buckle Up Program to publicize the Arkansas Seat Belt Law. The Spinal Cord Commission has also promoted the "Check It Out Before You Dive" program to educate Arkansas about the risk of diving-related spinal cord injuries.

Since 1989 in cooperation with the Center for Disease Control, the Spinal Cord Commission has implemented a project to identify and reduce the incidence of pressure sores in spinal cord injured individuals in Arkansas. This project consists of a survey of individuals to identify incidence and cause of pressure sores, a hospital cost study, in home education, medical staff training, and a program to identify high risk individuals at hospital discharge.

In addition to the Arkansas Spinal Cord Registry (the oldest legislatively mandated spinal cord registry in the United States), the Spinal Cord Commission has established a more comprehensive surveillance program in cooperation with the Centers for Disease Control. A statewide survey of people with spinal cord injury was obtained in 1990 and is now being analyzed to help develop strategies to prevent spinal cord injury in Arkansas in the future.

The Arkansas Education and Resource Center on Spinal Cord Injury was opened in the central Little Rock office of the Spinal Cord Commission in the



spring of '92. This center provides information on spinal cord injury causes, treatments and resources. It contains 900 references including books, articles, videotapes, films and catalogues. Smaller resource centers have been established in regional field offices as well to allow ready access of information in the local communities.

With the assistance of a grant through the Paralyzed Veterans of America, the Spinal Cord Commission initiated publishing facts sheets on common problems in spinal cord injury including autonomic dysreflexia, pressure sores, neurogenic bladder management to patient's families, and to doctors and other health care workers. They also publish a quarterly newsletter, "The Spinal Courier", which is distributed to all clients on the registry and interested health care professionals. Beginning in 1990, the Spinal Cord Commission has sponsored an annual statewide Spinal Cord Conference with day long education programs for clients, families, and health care professionals on spinal cord injury.

While the initial goal of the original Arkansas Spinal Cord Commission to set up a regional model spinal cord center has never been met, many other goals have been achieved. Through the vision and

hard work of many individuals the care of spinal cord injured Arkansans has vastly improved, and their future continues to be brighter.

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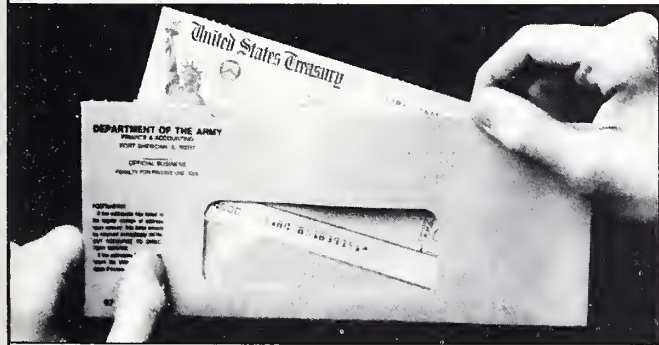
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NOTE: Information for this article was obtained through the correspondence and notes of Mrs. Jane Smith, the assistance of Dr. Shirley McCluer, and Dr. Stevenson Flanigan, as well as the 1993 Annual Report from the Arkansas State Spinal Cord Commission.

Mrs. Smith was honored in 1991 at the annual recognition dinner for Arkansas Volunteers for her outstanding services to the state. ■

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# The Treatment of Epilepsy: When, What and How

Gregory B. Sharp, M.D.\*

The treatment of epileptic seizures was a total mystery and fraught with superstition until well into the twentieth century. Although many advances have been made, much of the mystery still remains, and unfortunately all superstition has not been laid to rest. The underlying neurophysiological mechanism at the cellular level to explain why a given individual is prone to seizures is still not completely understood, as it is complex and multifactorial.

*As yet we are ignorant of any means of suddenly curing the disease, and from what we now know of its etiology and pathology, it seems unlikely that any means of rapid or sudden cure will be forthcoming in the immediate future.*

*Spratling, 1904*

Theories regarding neuronal epileptiform activity have resulted in the development of a number of antiepileptic drugs (AED's). Clinical trials and experience have provided information concerning efficacy and side effects of presently used AED's. The medical care provider should identify persons that need to be treated medically for epilepsy. The first step is the identification and appropriate classification of the type of seizure. This is primarily based on the clinical characteristics and description of the seizures, with possible assistance provided by the electroencephalogram (EEG), and neuroimaging studies. The decision then needs to be made whether or not AED treatment is warranted by considering the risks and dangers presented by recurrent seizures compared to the problems of taking a daily medication and associated potential side effects. If medical

therapy is chosen, the most appropriate AED indicated for the specific seizure type with the least possibility for adverse reactions should be used. Individual seizure types and epileptic syndromes must be considered separately regarding the indication for treatment and AED selection.

## TREATMENT OF SPECIFIC TYPES SEIZURES AND EPILEPSY

### The Single Seizure

Up to 10% of the population may have a single seizure at sometime during their lives. These are commonly provoked by a potentiating stimulus such as fever, infection, toxins, drugs, drug or alcohol withdrawal, metabolic disturbance, trauma, etc. Treatment is directed at the underlying condition, and prolonged treatment with AED's is typically not indicated unless a persistent risk for seizures exists, i.e., cerebral injury from trauma. Regardless, in most circumstances ongoing AED therapy is not initiated until subsequent seizures occur.

### Post-traumatic Seizures

Minor head trauma without loss of consciousness is typically not an etiology of epilepsy. More serious injury producing skull fracture, intracranial hemorrhage, cerebral contusion, or penetration are more likely to induce seizures. Most early onset seizures begin within the first week after injury (80%) with one half of those occurring within the first 24 hours.<sup>2,3,4</sup> Intravenous loading with phenytoin (15-20 mg/kg) helps prevent seizures immediately following severe head injury.<sup>4,5</sup>

### Febrile Seizures

Febrile seizures are defined as an event in infancy or childhood, usually occurring between three months and five years of age, associated with fever but with-

\* Gregory B. Sharp, M.D., is Assistant Professor of Pediatrics & Neurology at the University of Arkansas for Medical Sciences and Co-Medical Director, Arkansas Comprehensive Epilepsy Program (ACEP).



out evidence of intracranial infection or defined cause.<sup>6</sup> Between two to five percent of children will experience a febrile convulsion prior to age five years.<sup>7-13</sup> Febrile seizures typically occur with a high fever of 39°C or higher and commonly during a rapid rise in fever. The seizure will usually be a brief generalized convulsion and is associated with very low morbidity.

Simple febrile seizures that are brief are benign events that typically do not warrant medical treatment. Preventative treatment should be directed at controlling fever with antipyretics, cool baths, etc. When seizures occur with a low grade fever, have a focal component, or are prolonged, the possibility of an underlying epilepsy needs to be considered and further evaluation is warranted. Fever is a common precipitant of seizures in children with epilepsy.

Ongoing treatment with AED's should only be considered when febrile convulsions occur frequently or when they tend to be prolonged. Three therapeutic options include continuous prophylaxis with phenobarbital or valproic acid, intermittent prophylaxis with a benzodiazepine (0.3 mg/kg of diazepam by mouth every eight hours during the febrile illness), or rectal administration of diazepam (0.3 mg/kg) after a seizure has begun.<sup>14</sup>

Prophylactic treatment with phenobarbital reduces the risk of recurrence by about 50%. The 40% chance of adverse behavioral alterations with phenobarbital and the minimal negative effect on cognition must be considered. Valproic acid is equally effective but the greatest risk of hepatic failure associated with this age group also warrants reservation. Carbamazepine and phenytoin are not effective in preventing febrile convulsions.

### **Partial Seizures**

Partial seizures, either simple, or complex with alteration of consciousness should be treated when they are recurrent. Treatment may not be indicated with single seizures or those that recur very infrequently. The presence of a persistent abnormality on the neurological exam or neuroimaging studies increase the likelihood of recurrence and the indication for treatment. Drugs of choice include carbamazepine, phenytoin, and valproic acid. Multiple studies have not revealed significant differences in efficacy between these drugs.<sup>15-20</sup> Two new AED's, felbamate and gabapentin can also be considered for use.

### **Absence Seizures**

Absence seizures are brief episodes associated with a lapse in consciousness and usually occur very frequently, often with numerous episodes per day. They interfere with functioning, especially at school for children. Drugs of choice are valproic acid and

ethosuximide with both drugs producing control in > 80% of patients.<sup>21-26</sup> A combination of these drugs is indicated when both have failed individually. Ethosuximide is not effective in preventing generalized convulsive seizures; therefore, valproic acid should be used when absence and convulsive seizures coexist.<sup>25</sup>

### **Primary Generalized Convulsive Seizures**

Valproic acid or sodium valproate is the drug of choice for primary generalized convulsive seizures. Phenytoin is the second drug of choice. A benzodiazepine, i.e. clonazepam, can sometimes be added effectively as an adjunctive drug. If seizures are not controlled with these agents, felbamate, carbamazepine and barbiturates can be considered.

### **Benign Epileptic Syndromes**

Benign focal epilepsies of childhood are very common and may account for as many as one-half of focal epilepsies with an onset at less than 15 years of age.<sup>27</sup> The most common type is benign centrotemporal or rolandic epilepsy of childhood. With this disorder prominent spike discharges are seen in the centrotemporal regions especially during sleep. Seizures are typically infrequent and commonly arise out of sleep. They may begin with focal involvement of the face and arm and often secondarily generalize. The children are otherwise neurologically normal. Because the seizures are often infrequent and may only occur during sleep, treatment is commonly not warranted. Frequent seizures, daytime seizures, or prolonged convulsive seizures may indicate the need for therapy. Response to treatment is typically excellent with a relatively low dosage of medication. The same AED's recommended for focal seizures are used. As the child matures, the tendency for seizures resolves, and the EEG normalizes by 15 to 16 years of age.<sup>4,14,28,29</sup> Similar syndromes can occur with spikes seen in the occipital and frontal regions as well.<sup>4,14</sup>

### **Juvenile Myoclonic Epilepsy**

Juvenile myoclonic epilepsy is a dominantly inherited disorder that is quite common and may account for as much as 10% of all epilepsies. It is characterized by the onset of myoclonic jerks during early adolescence. Up to 90% of these individuals develop generalized tonic-clonic seizures and one third develop absence.<sup>4</sup> Precipitating factors include sleep deprivation, alcohol consumption and fatigue. The drug of choice is valproate which is effective in up to 90% of patients.<sup>30-33</sup> Clonazepam is helpful to control myoclonus but does not control generalized tonic-clonic seizures. Carbamazepine, phenytoin and primidone are alternative choices.

## MANAGEMENT OF AED THERAPY

The goal of therapy is complete seizure control if possible and hopefully will be accomplished with a single AED. Monotherapy results in the absence of drug interactions, less side effects, and usually better seizure control. It is well established that side effects and toxicity increase significantly with polytherapy. The selection of an appropriate AED is made to treat the patient's seizures, and the lowest dosage that results in seizure control should be utilized. If seizure control is not established the tolerable dosage should be maximized before changing to an alternative AED. The second drug is then added, and when therapeutic, the initial drug is tapered or discontinued. When attempts at monotherapy have not been effective, combinations of medications can be tried.

Serum concentrations of drugs are indicated for two primary reasons. The first is to insure compliance, and the second is to enable adjustment of dosage if seizures are not controlled. If seizures are controlled and the patient is not exhibiting signs of toxicity, there is little value of obtaining a serum level.

All AED's have potential side effects and these risks have to be weighed against the probability of recurrent seizures. Patients must be informed about potential risks. A skin eruption typically occurs during the first few weeks of therapy but can occur at

any time. A significant rash should prompt prompt discontinuation of that agent. Liver function tests that are elevated greater than two times normal should typically prompt discontinuation. It is notable that the serum GGT level is commonly elevated due to induction of hepatic enzymes and does not indicate toxicity. Thrombocytopenia and aplastic anemia are rarely associated with AED use.

Common side effects observed with AED's include hyperactivity and behavioral changes with phenobarbital; tremor, weight gain, and sometimes hair loss with valproate; and gingival hyperplasia with phenytoin. Sedation is a common toxic manifestation of almost all AED's and is commonly seen with polytherapy. Ataxia, nystagmus, and nausea are common effects of phenytoin toxicity. Double and blurred vision are often present with carbamazepine toxicity.

## NEW GENERATION AED'S

The first new AED's in almost 20 years, felbamate and gabapentin were released in the United States within the past year. Several other AED's are presently being evaluated in clinical trials and should be released within the next few years. Hopefully, these agents will add to the effectiveness of seizure control with medical therapy. These AED's will be discussed in the next article in this series entitled *The Treatment of Epilepsy: The New Generation of Antiepileptic Drugs*.

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# Evaluation of a Clinic for Pregnant Adolescents

Rebecca J. Patterson, DSN, RN\*  
 Susan Ellerbee, PhD, RN\*\*  
 M. Jayne Powell, PhD, RN\*\*\*

Patricia J. Thompson, PhD, RN\*\*\*\*  
 Elaine Jackson, PhD, RN\*\*\*\*\*

## ABSTRACT

A random retrospective review of the Teen Obstetrical Parenting Perinatal Services (TOPPS) clinic medical records for 1985 to 1989 was completed on 120 adolescent mothers (30 charts for each year). The purpose of this study was to evaluate maternal and infant outcomes related to the goals of the TOPPS clinic located at University Hospital on the UAMS campus in Little Rock, Arkansas. The clinic was co-founded by Lee Lee Doyle, Ph.D., who is now professor of obstetrics/gynecology at UAMS, and Betty Rouse, R.N., M.N.Sc., who is a clinical associate professor at UAMS, College of Nursing.

The outcomes measured were nutritional status as measured by maternal weight gain, infant birth weight, gestational age and Apgar scores. Referrals to appropriate agencies during pregnancy were also reviewed.

Analysis of the data revealed that 31% of clients received documented nutritional counseling, 60.2% of the babies were healthy (88% term and 87% appropriate for gestational age), and documented referrals (i.e. WIC, AFDC, Medicaid, etc.) were made in 32% of the cases. Conclusions were that both mothers and infants had positive outcomes. Documentation of referrals needs to be improved or rationale stated for non-referral.

## INTRODUCTION

The magnitude of adolescent pregnancy in the United States defies efforts to decrease its powerful negative influences on today's adolescents. In the late 1980's, over 450,000 adolescents gave birth annually in the United States representing 12% to 13% of total births.<sup>1</sup>

In Arkansas during the same period, 6,500 to 7,000 adolescents gave birth annually, representing about 19% of births in the state. One in four of these adolescent pregnancies in Arkansas resulted in a low birth weight infant.<sup>2</sup> In 1986, the estimated annual cost of care for low birth weight infants born to adolescent mothers in Arkansas was \$10.3 million.<sup>3</sup>

Increased public awareness of the problems associated with adolescent pregnancy has produced a multitude of programs to serve this population. Evaluation of such health care programs has become a necessity for continued financial and institutional support. In 1981, the Teen Obstetrical Perinatal Parenting Service (TOPPS) was established to address the physical, psychological, and social needs of pregnant adolescents, 17 years of age and under, who planned to deliver their infants at a teaching hospital in central Arkansas. An interdisciplinary team provides services aimed at facilitation of adolescent development while providing services or referrals to decrease risk and improve long-term outcomes for both mother and baby.

Prior to 1980, no formal evaluation of the clinic had been conducted. Therefore, the purpose of this study was to evaluate stated goals of the TOPPS clinic. Outcome goals of the clinic's prenatal care included sound nutritional intake for the delivery of a healthy term, average weight for gestational age infant and referral to appropriate agencies as necessary to meet the stated goals. With these goals in mind, we addressed specific client outcomes.

\* Rebecca J. Patterson, DSN, RN, is Associate Professor, University of Arkansas for Medical Sciences, College of Nursing.  
 \*\* Susan Ellerbee, PhD, RN, is Administrator, Office of Breastfeeding Services, Arkansas Department of Health.  
 \*\*\* M. Jayne Powell, PhD, RN, is a retired Associate Professor, University of Arkansas for Medical Sciences, College of Nursing.  
 \*\*\*\* Patricia J. Thompson, PhD, RN, is Associate Professor, University of Arkansas for Medical Sciences, College of Nursing.  
 \*\*\*\*\* Elaine Jackson, PhD, RN, is Associate Professor, Southeast State University, Cape Girardeau, Missouri.

Adequate prenatal weight gain was used as a proxy variable for sound nutritional intake. A healthy term infant was operationally defined as an infant born at 37 to 42 weeks gestation with a birth weight of 2,500 grams (5 lbs. 8 oz.) or more. Birth weight appropriate for gestational age (between the 10th and 90th percentile) according to Ballard criteria and a one minute Apgar score of seven or greater were also considered as proxy variables for this outcome. Referrals to appropriate agencies during pregnancy were also reviewed.

## METHODS

A retrospective chart audit was used to evaluate the maternal and infant outcomes of prenatal care in the TOPPS population. Individual records were obtained from the medical records department at the hospital where the TOPPS Clinic was located.

A random sample of 30 mothers (and their infants) from each year were chosen using a table of random numbers (N = 120). Of the 120 original charts, 21 were incomplete, one was a duplicate record for a mother of twins. Therefore, 98 maternal charts and 99 neonatal charts were available for review. The years 1985 through 1988 were selected because the use of a standardized prenatal record, begun in 1985, would facilitate more consistent data collection from the records.

Descriptive statistics were calculated for measures of central tendency on all variables. Interpretation of data included comparisons with available state data for comparable periods of time.

## RESULTS

Specific maternal and infant outcomes are addressed first, followed by a comparison of available state and national data for each outcome measured.

## SAMPLE

The maternal sample consisted of 43.9% (n = 43) Caucasian and 56.1% (n = 55) Black. This compares with state and national statistics which report that about 35% of pregnant adolescents are Black. The mean age at delivery was 16 years, 5.5 months with a range of 13 years, 5 months to 18 years, 5 months. Almost 80% (n = 78) of the subjects were unmarried at delivery, which was significantly higher than the national percentage of 58.7% (p < 0.001).<sup>4</sup> Table I is a side by side comparison of TOPPS maternal information and Arkansas data.

Prenatal care began in the first trimester for 31.0% of subjects as compared to the 1986 national rate of 53.0% for women less than 19 years old.<sup>1</sup> Fifty-five percent accessed the clinic in their second trimester with the remaining 13.7% beginning care in their third trimester. When prenatal care began was not docu-

**TABLE 1**  
Comparison of TOPPS Maternal Information with Arkansas Data

	TOPPS	Arkansas
<u>Ethnicity</u>		
White	43.9%	63.9% <sup>1</sup>
Black	56.1%	35.7% <sup>1</sup>
<u>Maternal Age at Delivery</u>		
< 15 years	7.1%	2.8% <sup>1</sup>
15-17 years	78.8%	37.3% <sup>1</sup>
18-19 years	14.1%	59.9% <sup>1</sup>
<u>Maternal Status at Delivery</u>		
Single	78.8%	56.2% <sup>1</sup>
Married	21.2%	43.6% <sup>1</sup>
<u>Type of Delivery</u>		
Vaginal	85.8%	72.1% <sup>2</sup>
Cesarean	14.2%	24.7% <sup>2</sup>

1. Based on 6,602 live births to women under 19 in Arkansas in 1988.
2. Based on 35,022 live births to women in Arkansas in 1988.

Source: Arkansas Department of Health, Maternal and Child Health Statistics-1988, Little Rock, AR: Author, 1990.

mented on 11 maternal records. Table II shows entry of TOPPS clients into prenatal care according to age groups.

The rate of cesarean delivery in this sample was 14.2% (n = 14) as compared to 24.7% for the state.<sup>2</sup> Eighty-eight (89.8%) of the 98 maternal subjects were primiparous.

**TABLE 2**  
Entry into Prenatal Care

Timing of Access to Prenatal Care			
	TOPPS	Arkansas	
First Trimester	27.6%	49.4% <sup>1</sup>	
Second Trimester	55.0%	38.8% <sup>1</sup>	
Third Trimester	12.2%	10.5% <sup>1</sup>	
Trimester Prenatal Care Started			
<u>Age at Delivery</u>	<u>First</u>	<u>Second</u>	<u>Third</u>
< 15 years	20%	40%	40%
15-16 years	26.3%	55.2%	18.4%
17-18 years	36.3%	56.8%	6.8%
Overall Total	31.0%	55.1%	13.7%
	(n=27)	(n=48)	(n=12)

NOTE: Entry into prenatal care was not documented on 11 maternal records.



MATERNAL OUTCOMES

The adolescent mothers in this sample had an average weight gain of 28.4 pounds with a reported range of five to 61 pounds. The average weight gain was within recommended guidelines although controversy exists whether adolescent mothers should gain more weight than other pregnant women.<sup>5</sup> Nutritional counseling was documented for 31% of the subjects. The most frequently noted nutritional problems were inadequate calcium, protein and iron, which also have the potential for problems such as anemia and inadequate growth in the neonate.

NEONATAL OUTCOMES

Of the infants born alive, 44 (44.4%) were males and 55 (45.6%) were females. The majority (n = 87) of the infants weighed over 2,500 (5lbs. 8 oz.) grams at birth. These findings are similar to statistics for Arkansas which show that 89.5% of all infants born to adolescent mothers in 1988 weighed over 2,500 grams at birth.<sup>2</sup> Average birth weight was 3070.6 (6 lbs. 12 oz.) grams which is similar to other research findings.<sup>6</sup>

Almost 90% of the infants were born after 37 weeks gestation. The average gestational age was 38.8 weeks. This compares favorably with a rate of 67% of babies

born at term in Arkansas during 1988. Likewise, the TOPPS sample had a rate of 1.1% post-term births (births after 42 weeks gestation) as compared to 13.8% for the state during 1988.<sup>2</sup>

Eighty-five (85.9%) of the infants were average weight for gestational age with 9 (9.1%) described as large for gestational age (LGA) and 5 (5.0%) small for gestational age (SGA). The median APGAR score was eight at one minute and nine at five minutes. Table 3 is a side by side comparison of TOPPS neonatal outcomes and Arkansas data.

Almost two-thirds of the infants (60.2%) had no neonatal complications. Most of the recorded complications were minor such as "rule out sepsis" (5.5%) and physiologic hyperbilirubinemia (6.3%). Other neonatal complications included pathologic hyperbilirubinemia (4.5%) and respiratory distress (4.5%). None of the infants had any congenital anomalies. These findings compare to a reported incidence of sepsis in newborns as one to eight percent of live births and that 40% to 60% of full-term newborns will develop physiologic jaundice.

REFERRALS TO APPROPRIATE AGENCIES

Only 32% of the clients had documented referrals for services such as Aid for Dependent Children (AFDC) or Women, Infants and Children nutritional program (WIC). In summary, only 31% of the maternal clients received documented nutritional counseling, although 57% were noted to have problems with nutritional intake. Of the infants, 60.2% experienced no neonatal complications, 91% were born at term and 86% had a birth weight appropriate for gestational age.

DISCUSSION

The average maternal weight gain was within recommended guidelines during this time period indicating that many of the teens did have an adequate nutritional intake even though their nutritional status is not documented in their charts. The TOPPS staff either neglected to refer or to document their referrals in the charts. Referrals of any type were documented in only 35 of 98 cases. The majority of the babies were healthy, term, appropriate for gestational age, and not low birth weight.

The TOPPS staff are overall meeting the stated goals of the clinic as evidenced by the number of healthy, term babies and the low Cesarean section rate. Similar results have been obtained by other programs for pregnant adolescents.<sup>7</sup> However, documentation of referrals is inadequate. This could be explained by the possibility that no need existed or that more referrals were made but not documented. Also, the mothers may have already been receiving services

TABLE 3 Comparison of TOPPS Neonatal Outcomes and Arkansas Data		
Neonatal Outcomes	TOPPS	Arkansas
<b>Birth weight</b>		
<1500 grams (3 lbs 3 oz)	2.1%	1.8% <sup>1</sup>
1501-2500 grams	11.2%	8.4% <sup>1</sup>
>2501 grams (5 lbs 8 oz)	86.7%	89.5% <sup>1</sup>
<b>Gestational age</b>		
Preterm (<37 weeks)	11.2%	11.1% <sup>2</sup>
Term (37-42 weeks)	87.7%	67.4% <sup>2</sup>
Post-term (>42 weeks)	1.1%	13.8% <sup>2</sup>
<b>APGAR scores at 1 minute</b>		
0-3	2.7%	2.1% <sup>2</sup>
4-6	15.4%	6.2% <sup>2</sup>
7-10	70.9%	87.7% <sup>2</sup>
<b>APGAR scores at 5 minutes</b>		
0-3	0.0%	0.5% <sup>2</sup>
4-6	1.8%	1.3% <sup>2</sup>
7-10	98.2%	94.2% <sup>2</sup>

1. Based on 6,602 live births to women under 19 in Arkansas in 1988.  
2. Based on 35,022 live births to women in Arkansas in 1988.  
  
Source: Arkansas Department of Health, Maternal and Child Health Statistics-1988, Little Rock, AR: Author, 1990.

for which they would have been referred. (i.e., WIC, AFDC).

The relationships between specific variables are similar to those reported in other studies. For example, although Black adolescents had a higher educational level at delivery than Caucasians, Caucasians were older at delivery (average = 17.03 years) than Blacks (average = 16.5 years). One possible explanation is that Caucasian mothers may have left school during pregnancy more often than Blacks.

Timing of access to prenatal care and race, maternal age, and infant birth weight were also related. Caucasians sought prenatal care earlier than Blacks which is consistent with Finkelstein, et al.<sup>8</sup> However, younger mothers sought prenatal care later than the older mothers with the majority of young women in all groups entering prenatal care during the second trimester. Earlier prenatal care also resulted in babies with greater birth weights. Greater maternal weight gain, which has also been shown to be related to early prenatal care in some studies,<sup>9</sup> also resulted in babies with greater birth weights. Similar findings have been reported by others.<sup>10</sup>

Services at the TOPPS clinic currently end with the first postpartum visit. Therefore, data about eventual school completion, subsequent pregnancies, follow-up of referrals, and well child check-ups were not retrievable from these charts. A follow-up study has been completed to obtain these data related to

long-term outcomes. Also, there was no comparison group of pregnant adolescents who obtained prenatal care elsewhere.

## IMPLICATIONS

The interdisciplinary team that works in the TOPPS clinic should maintain their current prenatal interventions with these adolescent mothers. The need or lack of need for services needs to be documented more consistently. This documentation can easily be monitored through quality assurance methodologies available in the hospital system.

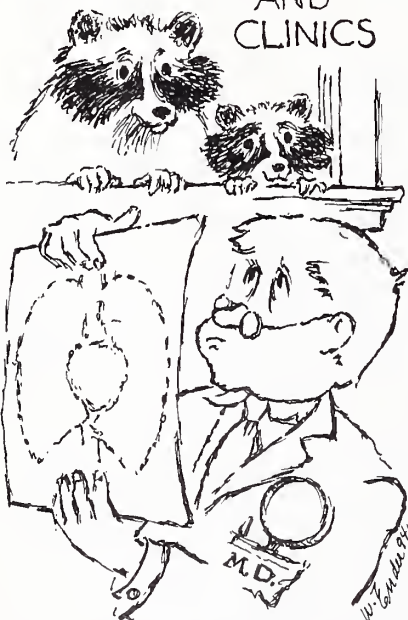
In addition, more services for the young women and their infants need to be implemented. Well-baby visits, including immunizations, could be combined with counseling and medical services needed by the mother. Recording of these visits on the charts would provide much of the data needed to completely evaluate the goals of the clinic as well as provide more comprehensive care for both the mother and her child.

The TOPPS clinic staff are contributing to the healthy outcomes for an adolescent population. If all pregnant teenagers in Arkansas were enrolled in similar programs, the impact on the number of low birth weight babies could be significant.

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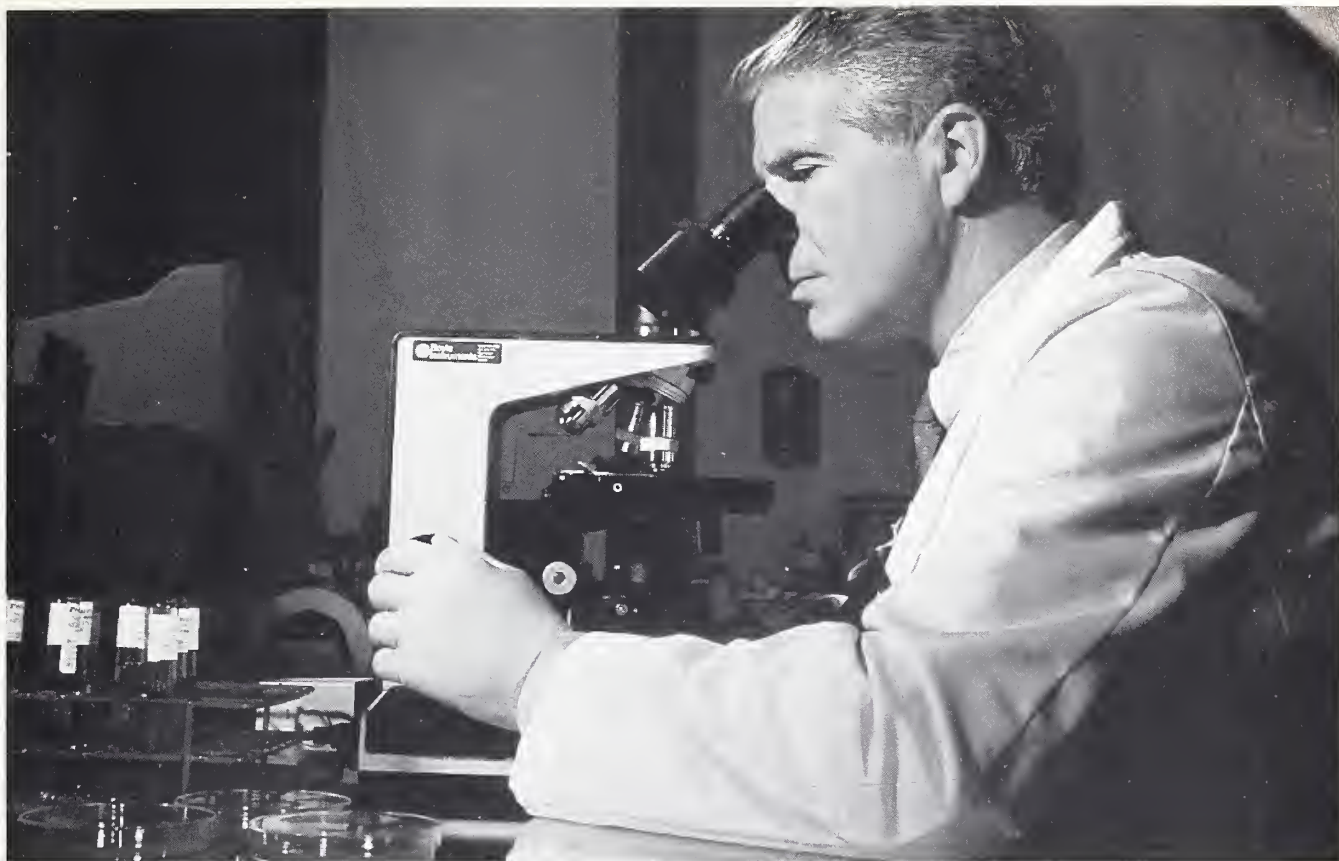
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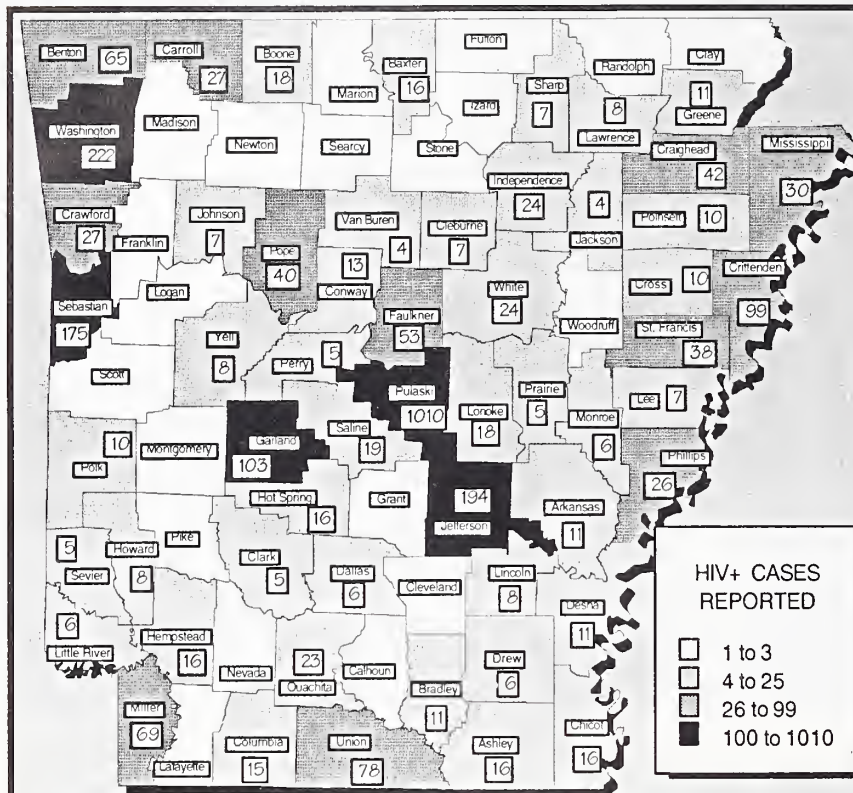
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# Arkansas HIV/AIDS Report

## 1983-1994



County of residence at the time of test for the 2772 Arkansans reported to be HIV+. (6/20/94)

### HIV in Arkansas

#### Reporting Requirements

HIV and AIDS case reporting by name and address is required by Act 967 of 1991 and the rules and regulations of the Arkansas Board of Health. Reporting is required at the time a person tests positive and again when they become symptomatic with AIDS. Those required to report include: physicians, nurses, infection control practitioners/infection control committees, laboratory directors, medical directors of nursing homes and home health agencies, clinic administrators, program directors of State agencies and or persons as may be required by the Board of Health.

Questions regarding reporting forms and requirements may be directed to Jan Bunch, HIV/AIDS Surveillance Coordinator at 1-501-661-2387.

Note: AIDS statistics are a subset of HIV statistics

HIV		83-86	1987	1988	1989	1990	1991	1992	1993	1994	Total	%
SEX	Male	51	49	215	248	413	400	392	352	203	2,323	84
	Female	2	6	26	37	68	85	81	94	50	449	16
AGE	< 5	0	1	1	3	0	13	6	3	6	41	1
	5-12	0	0	1	1	5	1	2	1	0	11	0
	13-19	0	0	7	8	14	19	25	11	13	97	3
	20-29	18	15	110	122	183	149	156	175	80	1,008	36
	30-39	22	22	86	103	195	208	179	168	98	1,081	39
	40-49	11	11	25	35	56	70	67	65	38	378	14
	> 49	2	6	6	11	18	22	38	23	18	144	5
RACE	White	40	47	170	174	328	298	291	277	142	1,767	64
	Black	13	8	69	106	151	184	173	163	103	970	35
	Other/Unknown	0	0	2	5	2	3	9	6	8	35	1
RISK	Male/Male Sex	31	33	129	134	236	237	252	233	122	1,407	51
	Injection Drug User (IDU)	4	9	27	47	65	93	74	61	30	410	15
	Male/Male Sex & IDU	14	5	23	24	32	30	30	25	11	194	7
	Heterosexual	3	2	22	27	57	58	66	98	43	376	14
	Transfusion	1	4	5	4	6	8	10	0	0	38	1
	Perinatal	0	1	1	3	0	13	8	4	6	44	2
	Hemophiliac	0	0	0	6	18	5	6	2	2	39	1
	Undetermined	0	1	34	40	59	41	27	23	39	264	10
HIV CASES BY YEAR		53	55	241	285	481	485	473	446	253	2,772	100%

Source: AIDS Surveillance Unit, Arkansas Department of Health.



# Arkansas HIV/AIDS Report

## 1983-1994

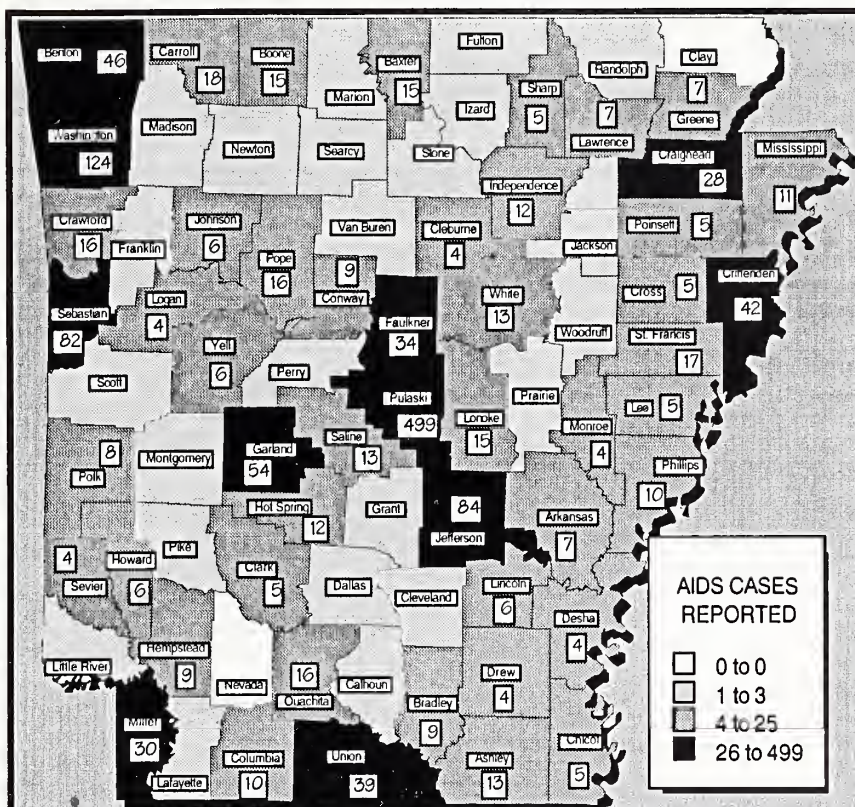
### AIDS in Arkansas

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Questions regarding reporting forms and requirements may be directed to Jan Bunch, HIV/AIDS Surveillance Coordinator at 1-501-661-2387.

Note: AIDS statistics are a subset of HIV statistics



Of the 2772 Arkansans reported to be HIV+, 1473 have been diagnosed with AIDS. 6/20/94

AIDS		83-86	1987	1988	1989	1990	1991	1992	1993	1994	Total	%
SEX	Male	39	46	77	70	170	176	250	336	120	1,284	87
	Female	1	4	6	10	20	25	35	64	24	189	13
AGE	< 5	0	0	1	1	6	6	3	2	0	15	1
	5-12	0	0	1	0	1	1	0	1	0	4	0
	13-19	0	0	0	0	4	3	2	4	2	15	1
	20-29	16	15	27	24	55	57	81	110	27	412	28
	30-39	16	23	36	41	78	80	128	178	70	650	44
	40-49	7	8	10	7	35	41	52	78	30	268	18
	> 49	1	4	8	7	11	13	19	27	15	105	7
RACE	White	31	43	61	58	141	134	206	275	95	1044	71
	Black	9	7	20	21	47	66	75	121	47	413	28
	Other/Unknown	0	0	2	1	2	1	4	4	2	16	1
RISK	Male/Male Sex	24	31	59	50	121	120	182	236	83	906	62
	Injection Drug User (IDU)	2	10	4	11	18	29	45	71	21	211	14
	Male/Male Sex & IDU	12	4	6	6	18	17	21	25	10	119	8
	Heterosexual	2	3	3	7	11	12	24	52	18	132	9
	Transfusion	0	2	7	3	7	11	3	2	1	36	2
	Perinatal	0	0	1	1	6	6	3	3	0	20	1
	Hemophiliac	0	0	1	1	5	5	4	5	4	25	2
	Undetermined	0	0	2	1	4	1	3	6	7	24	2
AIDS CASES BY YEAR		40	50	83	80	190	201	285	400	144	1,473	100%

Source: AIDS Surveillance Unit, Arkansas Department of Health.

# Arkansas HIV/AIDS Report

## 1983-1994

### Risk Assessment Tool

#### Sexually Transmitted Diseases

*Risk information is important to monitor patterns of continued spread of HIV and for health care workers to effectively counsel patients regarding spread of the infection.*

Patient:

Interviewer:

How many sex partners have you had in the past 10 years?	How many men?	How many women?
How many sex partners have you had in the past 12 months?	How many men?	How many women?
When was the last time you had vaginal intercourse?		
When was the last time you had anal intercourse?	Was it receptive?	Insertive?
How many of your sexual partners injected drugs with needles?		
How many of your sex partners had sex with people who injected drugs?		
How many of your sex partners were hemophiliacs?	How many of your sex partners were bisexual males?	

What is your average weekly use of alcohol?	How often do you use barbituates or amphetamines?	
How often do you use cocaine?	How often do you use crack?	How often do you use heroin?
Which of these drugs have you injected with needles?		
How many different persons have you shared needles with?	Do you think any of these people were HIV+?	

What is your marital status?	Has your spouse been tested for HIV?	
Does your spouse know your HIV status?	How old are your children?	Have they been tested?
Who do you live with?	Does that person have any risks for HIV?	What are those risks?

Have you ever had a sexually transmitted disease?	What symptoms did you have?	
Have you ever been treated for syphilis?	When?	Where?

Have you ever had a blood transfusion?	When?	Where?
When were you last in a hospital?	Which Hospital?	
Which other hospitals have you been admitted to since 1978?		
When you were last in the hospital, who was your doctor?		
Which other doctors have you been to since 1978?		

<b>RISK EXPOSURE GROUPS</b> (Check all that apply)	<input type="checkbox"/> Male/Male Sex	<input type="checkbox"/> Sex Partner of Known HIV+
	<input type="checkbox"/> Injecting Drug Use	<input type="checkbox"/> Blood Recipient (1978-86)
	<input type="checkbox"/> Hemophiliac	<input type="checkbox"/> Exchanged Money or Drugs for Sex
	<input type="checkbox"/> Sex Partner of IDU	<input type="checkbox"/> Male/Female Sex
	<input type="checkbox"/> Sex Partner of Hemophiliac	<input type="checkbox"/> Unknown
	<input type="checkbox"/> Female Partner of Bisexual Male	



April 1994

Source: AIDS Surveillance Unit, Arkansas Department of Health.



# Arkansas HIV/AIDS Report

## 1983-1994

### ARKANSAS LAW

## ARKANSAS LAW REGARDING HIV AND AIDS

*The following is a synopsis of Arkansas law related to HIV and AIDS. Individuals needing further interpretation or reference to other laws which may be applicable in certain circumstances should consult their attorney.*

**ACT 96 of 1913** Established the Arkansas State Board of Health and conferred to it the authority to adopt rules and regulations for the suppression and prevention of infectious, contagious and communicable diseases. The act allows that these rules and regulations extend to reporting of certain diseases; determines that non-compliance with rules, regulations or orders to be a misdemeanor punishable for each incident by not less than five dollars or more than one hundred dollars and or sixty days in jail or both. In 1988, HIV and AIDS were determined to be reportable conditions under the state rules and regulations.

**ACT 614 of 1989** Established that any person who has tested HIV positive and who exposes another person to the virus through parenteral transfer of blood or blood products or who engages in sexual penetration with another person without first having informed that person of the presence of HIV shall have committed a Class A felony. Additionally, the act allows judges to order HIV testing, based upon reasonable cause, for persons charged with certain sexual offenses. The act also required physicians to report to the Department of Health all patients determined to have AIDS or to have tested HIV positive. Establishes confidentiality restrictions on the Department for all information and reports made in connection with persons determined to have AIDS or to be HIV positive.

**ACT 615 of 1989** Requires any HIV infected person to advise physicians and dentists of their HIV status prior to receiving any health care services. Establishes that any person failing to comply with this act shall be guilty of a Class A misdemeanor.

**ACT 289 of 1991** "The HIV Shield Law" provides that informed consent is not required for HIV testing of a patient when, in the judgement of a physician, a health care provider has been exposed to bodily fluids of a nature that may transmit HIV. The act requires that in such instances, appropriate counseling and test results be provided to the health care provider and the patient. Also, informed consent for HIV testing is not required when a patient has otherwise provided his or her consent for treatment and when in the judgement of the physician, such testing is indicated to provide appropriate diagnosis. Additionally, health care providers or facilities may not deny appropriate care to a patient based upon the results of an HIV test.

**ACT 575 of 1991** Requires that companies that collect blood products for purposes of resale or distribution shall completely test all blood for the presence of HIV (including the performance of confirmatory testing with a test such as the Immunofluorescence Assay (IFA) or Western Blot or subsequent tests to be approved by the Food and Drug Administration. Such companies are required to notify all HIV positive donors of their status, encourage them to seek medical treatment and refer all positive donors to the Arkansas Department of Health for counseling, contact tracing and partner notification.

**ACT 967 of 1991** This act provides an expansion of reporting requirements as identified in Act 614 of 1989. Reporting of all persons determined to have AIDS or to have tested positive for HIV is required of physicians, hospital infection control practitioners and/or chairpersons of Hospital Infection Control Committees, Directors of all laboratories doing business in the State of Arkansas, Medical Directors of In-Home Health Agencies; Program Directors of all State agencies to whom an HIV/AIDS diagnosis has been disclosed; Nursing Home Medical Directors; and other persons as required by the rules and regulations of the Arkansas Department of Health.

**ACT 107 of 1993** Requires that persons working to intervene in the transmission of sexually transmitted diseases, must be registered and adhere to certain standards, ethics and work practices to qualify as "disease intervention specialists". Established the State Board of Disease Intervention Specialists.

**ACT 438 of 1993** Allows that a court may, upon finding reasonable cause, order HIV or Hepatitis testing of any person charged with committing assault and battery upon a law enforcement officer, firefighter or emergency medical technician.

**ACT 616 of 1993** Allows victims of certain sexual offences to request court orders for the mandatory HIV testing of persons convicted of such crimes. Requires that the victim be provided with appropriate counseling, HIV testing, and referral for appropriate health care and support services.

*Compiled by the Arkansas Department of Health, AIDS Surveillance Unit*



# New Members

---

## BATESVILLE

**Smith, Terry R.**, Internal Medicine. Medical education, University of Arkansas for Medical Sciences, Little Rock, 1980. Internship, UAMS, 1982. Residency, University of Tennessee, Memphis, 1984. Board certified.

## CABOT

**Thomason, Steven L.**, Family Practice. Medical education, University of Arkansas for Medical Sciences, 1991. Internship/Residency, AHEC-Northeast, Jonesboro, 1994.

## CONWAY

**Arnold, Robert S.**, Family Practice. Medical education, University of Arkansas for Medical Sciences, 1986. Internship/Residency, UAMS, 1989. Board certified.

## DARDANELLE

**Hejna, Thomas**, OB/GYN. Medical education, Creighton University, Omaha, Nebraska, 1960. Internship/Residency, Presbyterian-St. Luke's Hospital, Chicago, 1961. Board certified.

## EL DORADO

**Anzalone, Gary P.**, Pathology. Medical education, LSUMC, Shreveport, 1989. Residency, UAMS, 1994.

## FORDYCE

**Spears, Robert S.**, Anesthesiology/Family Practice. Medical education, Medical College of Georgia, Augusta, 1960. Internship, Spartanburg Gen. Hospital, Spartanburg, S.C., 1961. Residency, Medical College of Georgia, 1969. Board qualified.

## FORREST CITY

**Turner, Robert D.**, Family Medicine. Medical education, University of Arkansas for Medical Sciences, Little Rock, 1987. Internship, University Hospital, 1987. Residency, University of Texas Medical Branch, 1990.

## FORT SMITH

**Moore-Farrell, Laura G.**, Radiology. Medical education, University of Texas Medical School, Houston, 1989. Residency, University of Texas SW Medical Center, Dallas, 1993. Board certified.

**Short, Bradley M.**, Physical Medicine/Rehab.

Medical education, University of Osteopathic Medicine in Health Science, 1987. Internship/Residency, UAMS, 1991. Board certified.

## HARRISON

**Welch, William P.**, Anesthesiology. Medical education, University of Tennessee College of Medicine, Memphis, 1981. Internship, University of Kentucky Medical Center, Lexington, 1982. Residency, UAMS, 1984. Board certified.

## HEBER SPRINGS

**Quinn, Cynthia D.**, Ophthalmology. Medical education, University of Mississippi Medical Center, Jackson, 1981. Internship/Residency, UAMS, 1986.

## HOT SPRINGS

**Davis, Kristie L.**, Anesthesiology. Medical education, University of Arkansas for Medical Sciences, Little Rock, 1990. Internship/Residency, UAMS, 1991.

## LAKE VILLAGE

**Mansour, George**, Family Practice. Medical education, Cairo Medical School, Egypt, 1980. Residency, Sacred Heart Hospital, 1994.

## LITTLE ROCK

**Bryan IV, James W.**, Sports Medicine. Medical education, University of Arkansas for Medical Sciences, Little Rock, 1990. Internship/Residency, UAMS, 1993. Board certified.

**Harik, Sami I.**, Neurology. Medical education, American University of Beirut, Lebanon, 1965. Internship, American University Medical Center, 1965. Residency, American University of Beirut and Cornell University, 1971. Board certified.

**Reep, Peggy J.**, Radiology. Medical education, UNDSM, Grand Forks, 1989. Internship/Residency, University of Oklahoma Health Sciences, 1993. Board certified.

## NORTH LITTLE ROCK

**Taylor, Timothy J.**, General Practice. Medical education, University of Osteopathic Medicine and Health Science, Des Moines, Indiana, 1991. Internship, Brighton Medical Center, Portland, Maine, 1992.

## PINE BLUFF

**Herzog, John L.**, Cardiology. Medical education,



University of Mississippi, Jackson, 1981. Internship, Baptist Memorial Hospital, Memphis, 1982. Residency, University of Tennessee Baptist Memorial Hospital, 1984. Board eligible.

### RUSSELLVILLE

**Brown, William B.**, Orthopedic Surgery. Medical education, University of Arkansas for Medical Sciences, Little Rock, 1985. Internship/Residency, Madigan Army Medical Center, Tacoma, Was., 1991. Board certified.

### SPRINGDALE

**Denley, Thomas L.**, Internal Medicine. Medical education, LSU Med Center School of Medicine, Shreveport, LA, 1985. Internship, LSU Med Center, 1986. Residency, UAMS, 1989. Board certified.

### VAN BUREN

**Mason, Joe N.**, Gynecology. Medical education, University of Arkansas for Medical Sciences, Little Rock, 1958. Internship/Residency, Hillcrest Medical Center, 1962. Board certified.

### RESIDENTS

**Balis, Luc G.**, Family Practice. Medical education, Oklahoma University College of Medicine, 1994. Internship, AHEC-Fort Smith.

**Cottone, Joseph L.** Medical education, LSU Medical School, New Orleans, 1994. Internship, UAMS.

**Elnabtity, Mohamed H.**, Neurosurgery. Medical education, Wayne State University, Detroit, Michigan, 1994. Internship, UAMS.

**Gray, Janet E.**, Family Medicine. Medical education, University of Oklahoma College of Medicine, Oklahoma City, 1994. Residency, AHEC-Fort Smith.

**Jabben, Merten**, Physical Medicine/Rehab. Medical education, University of Wisconsin, Madison, 1994. Internship/Residency, UAMS.

**Johnson, Jennifer S.**, Psychiatry. Medical education, Texas A & M University Health Science Center College of Medicine, College Station & Temple, Texas, 1994. Internship/Residency, UAMS.

**Kennedy, Richard E.**, Transitional. Medical education, University of Mississippi Medical Center, Jackson, 1994. Internship, UAMS.

**Mullins, Michael**, Family Practice. Medical education, University of Arkansas for Medical Sciences, 1994. Residency, UAMS.

**Rushing, Paul A.**, Internal Medicine. Medical education, LSU School of Medicine, Shreveport, 1994. Internship, UAMS.

**Siems, Martin**, Orthopaedic Surgery. Medical education, University of Arkansas for Medical Sciences, 1994. Residency, UAMS.

**Taylor, James P.**, Emergency Medicine. Medical education, Louisiana State University School of Medicine, Shreveport, 1994. Residency, UAMS.

**Thomas, Jonathan**, Internal Medicine. Medical education, University of Arkansas for Medical Sciences, 1994. Residency, UAMS.

**Trieu, Thomas T.**, Family Medicine. Medical education, University of Health Sciences, Kansas City, 1994. Residency, AHEC-Fort Smith, Family Practice Residency.

**Tuong, Cam T.** Medical education, The University of Health Sciences, Kansas City, Mo., 1994. Residency, AHEC-Fort Smith, Family Practice Residency.

**Webb, John W.**, General Surgery. Medical education, Vanderbilt, Nashville, 1994. Internship/Residency, UAMS.

### STUDENTS

Hilary H. Barr  
Kevin J. Gancarczyk  
Jay D. Geoghagan  
Wes L. Hester  
Kevin C. Hiegel  
Holly L. Holland  
Thomas H. Hollis, Jr.

Charles M. McClain, III  
Clinton A. Netherland  
Anna "Janette" Parchman  
Pearletha R. Phillips  
Melissa A. Powell  
Walter M. Short  
William S. Sosebel



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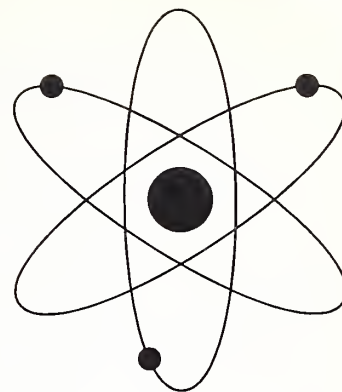
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# Radiological Case of the Month



Steven R. Nokes, M.D.  
J. Roger Clark, M.D.

## History:

This 12-year-old girl presented with knee pain. Plain films (figure 1) and an MR exam (figure 2-4) were obtained.

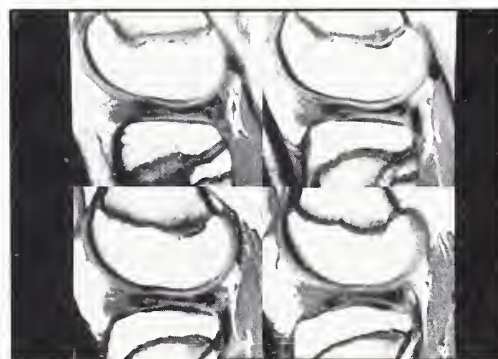
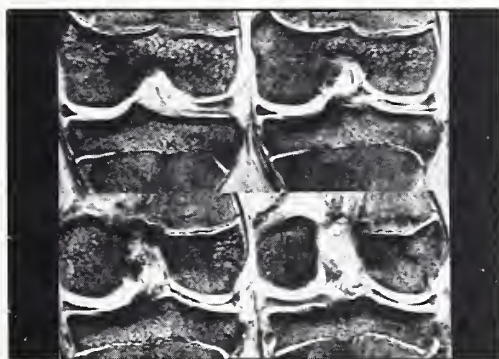
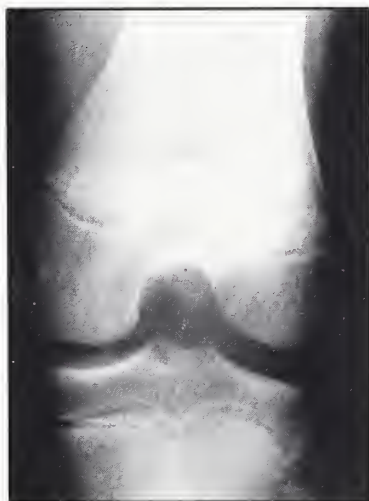


Figure 1 (top left): AP knee.

Figure 2 (top right): Coronal  $T_1$  weighted image.

Figure 3 (bottom left): Coronal  $T_2^*$  images.

Figure 4 (bottom right): Sagittal  $T_1$  weighted images of the lateral meniscus.

---

# Torn discoid lateral meniscus, with a meniscal cyst.

---

## Findings:

The plain film demonstrates a widened lateral compartment. The coronal MR images (figures 2 & 3) reveal an abnormally thick slab-type lateral meniscus with a horizontal tear. The lateral meniscus lacks the normal triangular shape of the medial meniscus. There is a 1 cm lobulated fluid collection adjacent to the lateral aspect of the meniscus continuous with a tear representing a meniscal cyst. On the sagittal MR images (figure 4), more than three continuous sections include meniscus which reveals a complex tear.

## Discussion:

MR imaging has become the noninvasive modality of choice for evaluating the knee. The menisci, ligaments, bursae, cartilage, bones and adjacent soft tissues are all well depicted.

A discoid meniscus is a dysplastic meniscus that may be symmetrically or asymmetrically increased in size. Lateral discoid menisci are much more common (1.5%) than medial discoid menisci (0.1%). The discoid meniscus may be as much as 2 mm taller than its normal counterpart, accounting for widening of the affected joint space seen on plain films. The normal meniscus is no wider than 12 mm, and should not be seen on more than three contiguous 4 mm sagittal images of the knee (figure 4).

Treatment of discoid menisci is in a state of progression. There is a move toward partial meniscectomy with an attempt to shape the meniscus to near normal if possible and away from total meniscectomy in patients with torn discoid menisci.

Meniscal cysts are collections of mucinous or synovial fluid associated with meniscal tears. They are more common laterally (7:1). It is important to differentiate a meniscal cyst from a ganglion or synovial cyst as a meniscal cyst will recur if the underlying meniscal tear is not repaired.

## Acknowledgements

We would like to thank Dorothy Staggs for preparing the manuscript and Cyndi Szarmach for the photography.

## References

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---

*Editor: Steven R. Nokes, M.D., is affiliated with Radiology Consultants in Little Rock.*

*Contributor: J. Roger Clark, M.D., is affiliated with Arkansas Sports Medicine in Little Rock.*





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# In Memoriam

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## **John L. Dedman, Jr., M.D.**

Dr. John L. Dedman, Jr., of Camden, died Sunday, July 3, 1994. He was 72.

He is survived by his wife of 49 years, Juanita Malcom Dedman of Camden; a sister, Mable Dedman Butt of Camden; three sons, Dr. John D. Dedman of Pine Bluff, Dr. William D. Dedman of Camden, Dr. Thomas M. Dedman of Camden; one daughter, Mrs. Julia Joseph of Little Rock; and four grandchildren.

## **Morris Andrew Jackson, M.D.**

Dr. Morris Andrew Jackson, of Little Rock, died Thursday, June 30, 1994. He was 69.

Survivors include his wife, Genevieve Jackson; sister Zenobia Jackson, both of Little Rock; and three sons, Morris Jackson, Duane Jackson, and Jonathan Jackson, all of Little Rock.

## **Mahlon D. Ogden, Jr., M.D.**

Dr. Mahlon D. Ogden, Jr., of Little Rock, died Saturday, July 16, 1994. He was 85.

Survivors include one son, David Ogden, of Little Rock; two daughters, Jana Howser and Sue Randall, both of Little Rock; one brother, John Ogden of Ithaca, New York; and two grandchildren.

## **Nathan L. Poff, M.D.**

Dr. Nathan L. Poff, of Heber Springs, died Monday, July 18, 1994. He was 62.

Survivors include his wife, Carolyn Poff; sons Leroy Poff of Germantown, Maryland, Larry Poff of Winter Haven, Florida, and Dr. Ken Kelley of Philadelphia, Pennsylvania; daughters, Jennifer Beam of Fayetteville, and Robin Kelley-Goss of Columbia, Missouri; brother, Frank Poff of Hot Springs; sisters, Margurette Gary of St. Joseph, Louisiana, and Reba Jean Ellis of El Paso, Texas; and three grandchildren.

## **Orion Harry Stuteville, M.D.**

Dr. Orion Harry Stuteville, of Marco Island, Florida, died Thursday, May 26, 1994. He was 92.

He is survived by his wife, Lucille Stuteville; a son, Dr. Joseph Stuteville; eight grandchildren; and three great grandchildren.

## **Frank Gibson Thibault, M.D.**

Dr. Frank Gibson Thibault, of El Dorado, died Wednesday, June 15, 1994. He was 83.

His wife of 50 years preceded him in death in 1989. He is survived by his sons, Dr. Frank Thibault, Jr. of Benton and Jephtha Thibault of Benton and his daughters, Lillian Jackson of Bauxite and Dorothy Thibault of Fairfax, Virginia; ten grandchildren and three great-grandchildren.

Dr. Thibault was a member of the Arkansas Medical Society Fifty Year Club.

# AMS Newsmakers

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Dr. Kelsy Caplinger, an allergist and advocate for children with disabilities; Dr. Harold Hedges, a family physician and former chief of staff at St. Vincent Infirmary Medical Center; and Dr. Harry Ward, chancellor of the University of Arkansas for Medical Sciences; were honored by the Visiting Nurse Association of Arkansas recently for serving the community. Dr. William "Pat" Flanigan, a pioneer in kidney transplantation, was honored posthumously.

Dr. Carlton L. Chambers, of Harrison, was elected president of the Arkansas Academy of Otolaryngology-Head and Neck Surgery at a recent meeting in Fairfield Bay.

Dr. James R. Crouch, Jr., a family practice physician at Millard-Henry Clinic in Russellville, recently completed a course of study on "endocrinology for primary care and emergency medicine."

Dr. Julea Garner, a Jonesboro family practitioner, received the Patterson Decade Award from Arkansas College recently.

The award is presented each year to two members of the 10-year reunion class, nominated by classmates, who have achieved notable degrees of success in their careers.

Dr. Frederick E. Joyce, chief pathologist at St. Michael Hospital, president of Chappell-Joyce Pathology Association, P.A., and president of Doctors Di-



agnostic Laboratory Inc. in Texarkana, was recently named to the board of directors of First Commercial Corporation.

**Dr. Sam L. Shultz**, of Searcy, has been awarded tenure, with promotion to associate professor of pediatrics, at the University of Arkansas for Medical Sciences and Arkansas Children's Hospital.

Dr. Shultz has been on the full time faculty since 1987. Previously, he worked 10 years as director of child and infant health with the Arkansas State Health Department.

**Dr. Robert White**, of Paragould, was recently named president-elect of the Arkansas Affiliate of the American Heart Association. Dr. Tena Murphy, of Little Rock, was named vice-president.

**Dr. Steven Wilson**, of Fort Smith, was nominated for the Brantley Scott Award given annually to the physician who best exemplifies dedication and service to the field of prosthetic urology and bladder health by the American Foundation for Urologic Disease during the American Urological Association National Convention in San Francisco.

He also offered presentations involving his research with inflatable penile prostheses and the correction of penile deformity during the convention.

### Physician's Recognition Award

The Physician's Recognition Award is awarded each month to physicians who have completed acceptable programs of continuing education. The AMS members who were recipients for the month of June are:

Michael E. Barnett	Heber Springs
Robert L. Berry	Little Rock
Raymond N. Bowman	El Dorado
Michael E. Crawley	Jonesboro
Theophilus A. Feild	Fort Smith
Ronald K. Frazier	Little Rock
Edward P. Hammons	Forrest City
Michael G. Hilman	Conway
Jerry L. Hitt	Rogers
Kelly H. Meyer	Russellville
Debra Jo Morrison	Little Rock
F. Hampton Roy	Little Rock
Robert V. Sanders	Fort Smith
R. Barry Sorrells	Little Rock
Hoy B. Speer	Stuttgart
James R. Weber	Jacksonville
Robert H. White	Malvern

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## Health Care Access Foundation Update

As of July 1, 1994, the Arkansas Health Care Access Foundation has provided free medical service to 7,721 medically indigent persons, received 14,870 applications and enrolled 29,954 persons.

This program has 1,668 volunteer health care providers including medical doctors, dentists, hospitals, home health agencies and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.

## Studies Indicate an Egg a Day Is Okay

Health authorities, including the American Heart Association (AHA), currently recommend limiting dietary cholesterol consumption. However, new research indicates that for healthy people with normal blood cholesterol levels, these guidelines may be too restrictive.

A study published in April's Arteriosclerosis and Thrombosis, a publication of the American Heart Association, studied the effects of dietary cholesterol on blood cholesterol. Researches at Columbia University monitored 20 healthy men who were fed four different diets each for eight weeks. All the diets followed National Cholesterol Education Step I guidelines with 30 percent of less calories coming from fat. The difference between the diets is that they contained one, two, four or zero eggs per day.

The result of the study is that there was no significant difference in blood cholesterol levels when eating between zero, one and two eggs per day. It is possible therefore, for many healthy people with normal blood cholesterol levels to include one egg per day in a low fat diet, without significantly changing their cholesterol levels.

Investigator Henry N. Ginsberg, M.D., points out that individual responses to dietary cholesterol in the study varied widely. In three cases, more eggs led to a reduction in total blood cholesterol. In others there was no change and in some, blood cholesterol increased. "The variation is not surprising based on previous research. There is always a variation in response, most probably because of genetic variations between people," said Dr. Ginsberg. "It is very important for people to know what their blood cholesterol level is; they can then find out what happens if they alter their diets."

According to the study, increases in dietary cholesterol are also associated with modest, linear increases in LDL (low density lipoprotein, the major fraction of blood cholesterol) cholesterol, which are not of medical significance and are not likely to con-

tribute to increased risk of atherosclerosis. The study showed that total blood cholesterol increased 1.47 mg/dl for every 100 mg of dietary cholesterol consumed per day, which is considered statistically and medically insignificant. Since an egg contains about 200 mg of cholesterol, consumption of one egg would raise serum cholesterol about 3 mg/dl, which is also statistically and medically insignificant.

Earlier studies have shown that responsiveness to dietary cholesterol is determined by the body's ability to compensate. According to Wanda Howell, Ph.D., R.D. of the University of Arizona, "Many people's bodies will cut back on the amount of cholesterol produced in the liver or increase cholesterol elimination when there is an increase in dietary cholesterol intake." According to Dr. Howell, as a result of this, most people can consume eggs without increasing their blood cholesterol levels.

Nutrition experts stress that saturated fats have more of an impact on blood cholesterol levels than dietary cholesterol. A diet high in saturated fat may block the clearance of cholesterol from the bloodstream, promoting artery-clogging cholesterol deposition. While eggs contain 213 milligrams of dietary cholesterol, they are relatively low in saturated fat and total fat. It is possible to include one egg per day in a low fat diet.

Previously, Dr. Ginsberg and co-workers studied a group of 48 healthy people and found that a reduction in dietary fat from 37 percent to 30 percent of calories did not lower blood LDL or total cholesterol levels unless the reduction of fat was achieved by decreasing saturated fats.

"Instead of concentrating on one particular food, such as the egg," said Dr. Howell, "we need to look at the diet as a whole." According to nutrition experts, following a low fat, high-fiber diet will help lower the risk of coronary heart disease. However, diet is not the most important risk factor. Smoking, a sedentary lifestyle and high blood pressure can all increase the risk for the nation's number one killer.

According to Robert C. Nicolosi, Ph.D., chairman of the American Heart Association's Nutrition Sub-committee, AHA will be convening a meeting in the spring of 1995 to re-examine existing dietary recommendations. "It is important to periodically evaluate current diet recommendations in light of changing and emerging scientific data," said Dr. Nicolosi. "If dietary cholesterol is not a major factor for most people, the restriction on foods, like eggs, that contain cholesterol but are low in fat and saturated fat may be unwarranted," he said.



## New, Single, Progressive Examination for Medical Licensure

When applicants for medical licensure take Step 3 of the new United States Medical Licensing Examination (USMLE) this week, the occasion marks the completion of the phased-in introduction of the new, progressive three-step examination. For the first time, the United States now has one, single, medical licensing examination for allopathic physicians.

The USMLE project is sponsored and developed by parent organizations, the Federation of State Medical Boards of the United States (FSMB) and the National Board of Medical Examiners (NBME). The USMLE replaces two separate examination sequences, developed previously by USMLE's parent organizations: the NBME certifying examinations Parts I, II and III; and the Federation Licensing Examination (FLEX). In the past, most graduates of accredited U.S. medical schools received licensure on the basis of NBME certification and about 25 percent were licensed on the basis of FLEX. Qualified graduates of foreign medical schools seeking U.S. licensure were required to take the FLEX.

The new USMLE is a progressive examination open to qualified candidates, whether they are graduates of U.S. or foreign medical schools. It requires all three steps to be completed to provide adequate as-

essment for initial medical licensure. Each step is complementary to the others and is comprised of multiple-choice questions administered in a two-day time period. Each step is administered twice annually. Phase-in of the new, single evaluation system began in 1992 with the first administration of USMLE Step 1 in June, and of Step 2 in September.

## Information, Support Available on Osteogenesis Imperfecta

The Osteogenesis Imperfecta Foundation offers information to doctors and their patients with this genetic bone disorder.

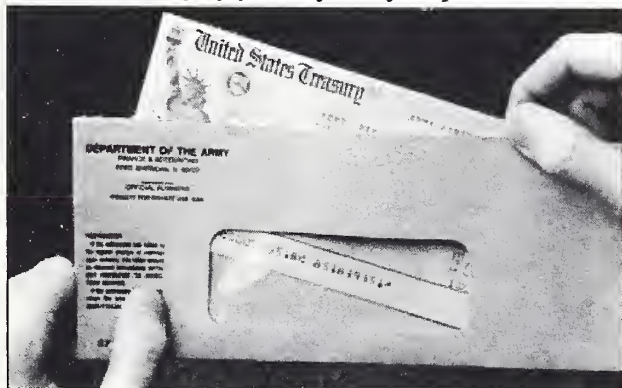
Symptoms of osteogenesis imperfecta (OI) are bones that fracture easily, short stature, hearing loss, scoliosis and other deformities, brittle teeth and respiratory complications. Because the disorder is relatively rare, affecting about 30,000 Americans, a physician may see only one or two people with OI in his practice.

The OI Foundation offers accurate information about OI through literature, videos, a quarterly newsletter and biennial national conferences. Support services and funding for research are other services.

For more information, contact the Osteogenesis Imperfecta Foundation, Inc., 5005 W. Laurel St., Suite 210, Tampa, FL 33607-3836, (813) 282-1161.

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# Things To Come

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**35th Annual Advanced Seminars in Dermatology.** Hyatt Regency Hotel, Incline Village, Nevada. Sponsored by the Office of CME and Dept. of Dermatology, UC Davis School of Medicine and Medical Center. Category I credit: 20 hours.

## September 17

**Parkinson's Disease.** Washington University Medical Center, St. Louis, Missouri. Sponsored by the Washington University School of Medicine. For more information, call (800) 325-9862 or (314) 362-6893.

## September 24

**Anxiety & Depression.** Washington University Medical Center, St. Louis, Missouri. Sponsored by the Washington University School of Medicine. For more information, call (800) 325-9862 or (314) 362-6893.

## September 24

**Gastroenterology and Hepatology: Update 1994.** The Westin Canal Place Hotel, New Orleans. Sponsored by Tulane University School of Medicine. For more information, call (504) 588-5466 or (800) 588-5300.

## September 29-October 1

**American Cancer Society National Conference on Prostate Cancer.** The Adams Mark Hotel, Philadelphia. For more information, call (404) 329-7604.

## October 1-2

**Ultrasound Update: 1994.** Red Lion Hotel, Sacramento, Calif. Sponsored by the Office of CME, UC Davis School of Medicine and Medical Center. For more information, call (916) 734-5390.

## October 6-9

**6th National Conference of the Society for Professional Well-Being.** Ritz Carlton Hotel, Dearborn, Michigan. Co-sponsored by the Michigan State Medical Society. For more information, call (919) 489-9167.

## October 7-10

**Peer Review Retreat.** Airlie House, Warrenton, Virginia. Sponsored by the Council of Biology Editors. For more information, call (312) 201-0101.

## October 15-17

**Comprehensive Gynecology.** Plaza Hotel, New York. Sponsored by the Center for Bio-Medical Communication. Category I credit: 13.5 hours. For more information, call (201) 385-8080.

## October 19-21

**Contemporary Cardiothoracic Surgery.** The Ritz-Carlton Hotel, St. Louis. Presented by the Division of Cardiothoracic Surgery and the Office of CME at Washington University School of Medicine. For more information, call (800) 325-9862.

## October 24-28

**Prevention in Practice: Workplace Health in the 21st Century.** Denver Marriott City Center, Denver, Colorado. Sponsored by the American College of Occupational and Environmental Medicine. For more information, call Kay Coyne at (708) 228-6850, ext. 18.

## October 27-28

**Symposium on Obstetrics & Gynecology.** Marriott Pavilion Hotel Downtown, St. Louis. Sponsored by the Washington University School of Medicine. For information, call (800) 325-9862 or (314) 362-6893.

## November 10-13

**21st Anesthesia and the Geriatric Patient.** Marriott Pavilion Hotel Downtown, St. Louis, Missouri. Sponsored by the Washington University School of Medicine. For more information, call (800) 325-9862 or (314) 362-6893.

## November 18

**Women's Healthcare Issues.** Ritz-Carlton Hotel, St. Louis. Sponsored by the Washington University School of Medicine. For more information, call (800) 325-9862 or (314) 362-6893.

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## Organ Transplant

August 25, 12:00 noon, MCSA Union Medical Campus Conf. #3, El Dorado. Sponsored by AHEC South Arkansas and presented by Beverly Ketel, M.D. Category I credit offered: 1.0 hour.

## Pediatric and Adult Cardiac Transplant

August 30, 12:00 noon, MCSA Union Medical Campus Conf. #3, El Dorado. Sponsored by AHEC South Arkansas and presented by James Harrell, M.D. Category I credit offered: 1.0 hour.

## Health Reform

September 8, 7:30 p.m. (6:30 p.m. dinner), El Dorado Country Club. Sponsored by AHEC South Arkansas and presented by Terry Yamauchi, M.D. Category I credit offered: 1.0 hour.

## Improving the Outcome of Dysphasia/Feeding Disorders: Nutrition and Quality Improvement

September 8-9, time to be announced, Holiday Inn West, Little Rock. Sponsored by UAMS College of Medicine and presented by Alan VanBiervliet, M.D. Category I credit: 9.0 hours.

## Nutrition & Aging X

September 28-29, time to be announced, Excelsior Hotel, Little Rock. Sponsored by UAMS College of Medicine and presented by David Lipschitz, M.D., and Ronnie Chernoff, M.D.

## Update in Primary Care Geriatrics Three Part Series

Sept. 17, Oct. 15 and Nov. 12, 8:00 a.m., Washington Regional Medical Center, Fayetteville. Dates coincide with Fayetteville Razorback football games (and War Eagle Craft Fair weekend, Oct. 15). For more information, call 442-1823. For Razorback football tickets, call 1-800-982-HOGS (4647). Category I credit: 2.0 hours each session.

## Second Prevention of Heart Disease: A Focus on Lipid Treatment

September 22, 12:00 noon, MCSA Union Medical Campus Conference #3, El Dorado. Sponsored by AHEC South Arkansas and presented by Peter Jones, M.D. Category I credit: 1.0 hour.

## Pediatric Orthopaedic Overview for Primary Care Providers

September 24, 8:00 a.m., Arkansas Children's Hospital Brandon Conference Center, Little Rock. Sponsored by Arkansas Children's Hospital and presented by Laurie Hughes, M.D.; Rosalind White, R.N.; and Betsy Tursky, R.N. Category I credit: 4.45 hours.

## Traumatic Brain Injury in the Child and Adolescent

October 21, Registration 8:00 a.m., Arkansas Children's Hospital Brandon Conference Center, Little Rock. Sponsored by UAMS and presented by Kerstin Sobus, M.D. Category I credit: 5.25 hours.

## Recurring Education Programs

As organizations accredited for continuing medical education by the Arkansas Medical Society, the organizations named certify that these continuing medical education activities meet the criteria for the credit hours specified in Category I of the Physician's Recognition Award of the American Medical Association.

### FAYETTEVILLE-VA MEDICAL CENTER

General Medical Topics, Thursdays, 12:00 noon, Auditorium, Bldg. 3

Medical Grand Rounds, Thursdays, 12:00 noon, Conference Room, Bldg. 4

### HOT SPRINGS-AMI NATIONAL PARK MEDICAL CENTER

Continuing Medical Education Luncheon, Aug. 26, Sept. 9 & 23, Oct. 14 & 28, 12:30 p.m., AMI Ozark - Quapaw Room

### LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL

Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium

Genetics Conference, Wednesdays, 12:00 noon, Sturgis Bldg., room 457

Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom



*Pediatric Grand Rounds*, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium  
*Pediatric Neuroscience Conference*, 1st Thursday, 8:00 a.m., 2nd Floor Classroom  
*Pediatric Pharmacology Conference*, 5th Wednesday, 12:00 noon, 2nd Classroom  
*Pediatric Research Conference*, 1st Thursday, 12:00 noon, 2nd Floor Classroom

#### **LITTLE ROCK-ST. VINCENT INFIRMARY MEDICAL CENTER**

*Cancer Conferences*, Thursdays, 12:00 noon, location to be announced. Lunch provided.  
*Chest Conference*, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Sandwich buffet served  
*General Surgery Grand Rounds*, 1st Thursday, 7:00 a.m. Smith Room. Light breakfast provided.  
*GYN Surgery Cancer Conference*, 2nd Monday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
*Interdisciplinary AIDS Conference*, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
*Joint Tumor Conference*, 1st Wednesday, 12:00 noon. CARTI Auditorium. Lunch provided.  
*Journal Club*, Tuesdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
*Mental Health Conference*, 3rd Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
*Urology Grand Rounds*, 1st Tuesday, 5:30 p.m., Southwestern Bell/Arkla room. Refreshments provided

#### **LITTLE ROCK-BAPTIST MEDICAL CENTER**

*Anesthesiology Conference*, 3rd Thursday, 7:00 a.m., Conference Room 1  
*Breast Conference*, 3rd Thursday, 7:00 a.m., Conference Room 1  
*GI Conference*, 4th Friday, 11:30 a.m., Conference Room 1  
*Grand Rounds Conference*, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.  
*Pathology Conference*, 1st Tuesday, 3:00 p.m., Pathology Library  
*Pediatric Grand Rounds*, Tuesdays, 12:00 noon, Especially for Women Resource Room, 2nd floor/BMC. Category 1 credit available. Lunch provided.  
*Pulmonary Conference*, Tuesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.  
*Sleep Case Conference*, Fridays, 12:00 noon. Call BMC ext. 1902 for location. Lunch provided.

#### **NORTH LITTLE ROCK-BAPTIST MEMORIAL HOSPITAL**

*Chest & Problems Case Conference*, 3rd Wednesday, 12:00 noon, Assembly room. Lunch provided.  
*Medicine Conference*, 1st Wednesday, 12:00 noon, Assembly room. Lunch provided.  
*Surgery Conference*, 2nd Wednesday, 12:00 noon, Assembly room. Lunch provided.  
*X-ray Case Conference*, 4th Wednesday, 12:00 noon, Assembly room. Lunch provided.

*As an organization accredited for continuing medical education by the Accreditation Council for Continuing Medical Education, the University of Arkansas for Medical Sciences certifies the following continuing medical education activities meet the criteria for Category I of the Physician's Recognition Award of the American Medical Association.*

#### **LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES**

*ACRC Oncology Forum*, Thursdays, 4:00 p.m., UAMS ACRC 2nd Floor Board room, 1.5 credits  
*Anesthesia Lecture Series*, Wednesdays, 4:00 p.m., UAMS Education Bldg., room G/110 A&B  
*Anesthesia Morbidity & Mortality Conference*, Tuesdays, 6:45 a.m.; 2nd & 4th Thursdays, 4:00 p.m., UAMS Education Bldg., room G/110 A&B  
*Arkansas Blood & Cancer Society Conference*, 6th Thursday, 7:30 p.m. Terrace Restaurant, Little Rock  
*Cardiology Clinical Conference*, Mondays, 4:00 p.m., UAMS, room 3S06  
*Cardiology Graphics Conference*, Wednesdays, 12:00 noon, UAMS, room 3S06  
*CARTI North Tumor Board Cancer Conference*, 2nd Wednesday, 12:00 noon, CARTI North, Searcy  
*Cardiothoracic Surgery Conference*, date, time, & location varies  
*Cardiothoracic Surgery Monthly Journals Club*, 4th Saturday, 9:30 a.m., UAMS Surgery Dept. Library, room 2S/28D  
*Cardiothoracic Surgery Morbidity & Mortality Conference*, 2nd Saturday, 9:30 a.m., UAMS Surgery Dept. Library, room 2S/28D  
*Child Psychiatry Update/Case Conference*, 3 Fridays per month, 1:00 p.m., ACH Child Study Center conference room  
*CME Outreach Program*, dates, times & locations vary  
*Emergency Medicine Didactic Conference 1*, Thursdays, 12:00 noon. UAMS Education Bldg., room G/110A&B  
*Emergency Medicine Didactic Conference 2*, Thursdays, 1:00 p.m., UAMS Education Bldg., room G/110A&B  
*Emergency Medicine Grand Rounds 1*, Tuesdays, 3:00 p.m., UAMS Education Bldg., room B/106A&B  
*Emergency Medicine Grand Rounds 2*, Tuesdays, 4:00 p.m., UAMS Education Bldg., room B/106A&B  
*Endocrinology Case Conference*, Fridays, 7:30 a.m., ACRC 3rd floor conference room  
*Family Practice Grand Rounds*, Tuesdays, 12:15 p.m., Family Practice Center, 6th and Elm  
*Gastroenterology Grand Rounds*, Thursdays, 4:00 p.m., Gastroenterology conference room, 3D29  
*GI/Radiology Conference*, Tuesdays, 8:00 a.m., UAMS Radiology conference room, M1/293  
*Hematology/Oncology Fellow's Forum*, Fridays, 8:15 a.m., ACRC Betsy Blass conference room  
*Interhospital Urology Grand Rounds*, 1st Tuesday, 5:30 p.m., St. Vincent Arkla/Bell room  
*LR Cancer Conference*, Wednesdays, 12:00 noon, UAMS ACRC conference room three times a month, CARTI Auditorium once a month

*LR Vascular Conference*, time & date varies monthly, rotates between UAMS, SVI & BMC  
*Medicine Grand Rounds*, Thursdays, 12:00 noon, UAMS Education Bldg., room G/131A&B  
*A&P/Path Conference*, 3rd or 4th Tuesday, 3:00 p.m., UAMS Shorey Bldg., room S/306  
*Medicine Journal Club*, alternate Thursdays, 7:30 a.m., ACC Medicine Clinic conference room  
*Medicine Research Conference*, Wednesdays (except 3rd), 4:30 p.m. UAMS Education Bldg. room B/135  
*Neurology Clinical Case Conference*, Thursdays, 8:00 a.m., rotates between VAMC-LR, UAMS, & ACH  
*Neuropathology Conference*, Thursdays, 9:15 a.m. VAMC-LR Pathology Dept. 1.25 credit hours  
*Neuroradiology Conference*, Wednesdays, 4:00 p.m., UAMS Neuroradiology conference room, M1/293  
*Neuroscience Conference (Basic)*, Mondays, 8:00 a.m., UAMS 7D33  
*Neuroscience Conference (Basic & Clinical)*, Wednesdays, 4:00 p.m., UAMS 7C  
*Neurosurgery Journal Club*, 2nd & 4th Thursdays, 8:00 p.m., 2 credit hours  
*Neurosurgical Pathology Conference*, Thursdays, 4:00 p.m., VAMC-LR Neuropathology. conference room, 2E141  
*OB/GYN Fetal Boards*, 2nd Fridays, 8:00 a.m., ACH Sturgis Bldg.  
*OB/GYN Grand Rounds*, Wednesdays, 7:45 a.m., UAMS Education Bldg., room G/131B  
*Ophthalmology Problem Case Conference*, Thursdays, 4:00 p.m., UAMS Jones Eye Institute, 2 credit hours  
*Ophthalmology Residency Morning Lectures*, Mondays, Wednesdays, Fridays, 7:30 a.m., UAMS Jones Eye Institute  
*Orthopaedic Basic Science Conference*, Tuesdays, 8:00 a.m., UAMS Education Bldg., room B/135  
*Orthopaedic Bibliography Conference*, Tuesdays, 8:30 a.m., UAMS Education Bldg., room B/135, 1.5 credit hours  
*Orthopaedic Fracture Conference*, Tuesdays, 7:30 a.m., UAMS Education Bldg., room B/135  
*Orthopaedic Grand Rounds*, Tuesdays, 10:00 a.m., UAMS Education Bldg., room B/135  
*Pathology Autopsy Conference*, Wednesdays, 12:00 noon, VAMC-LR Morgue  
*Psychiatry Grand Rounds*, Fridays, 11:00 a.m., UAMS Child Study Center Auditorium  
*Surgery Basic Sciences Conference*, 1st Saturday, 7:30 a.m., ACRC 2nd floor conference room  
*Surgery Grand Rounds*, Saturdays, 8:30 a.m., ACRC 2nd floor conference room  
*Surgery Morbidity & Mortality Conference*, Saturdays, 9:30 a.m., ACRC 2nd floor conference room  
*Surgery Resident Case Conference*, Saturdays (except 1st), 7:30 a.m., ACRC 2nd floor conference room  
*Trauma Morbidity & Mortality Conference*, date & time varies monthly, ACRC 2nd floor conference room  
*Urology Adult Subject Oriented Conference*, once monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Basic Sciences Conference*, 2nd Tuesdays, 5:00 p.m., VAMC-LR, 4D resident office  
*Urology Clinical Didactic Conference*, 3rd Tuesday, 5:00 p.m., VAMC-LR, 4D  
*Urology Formal Teaching (Grand) Rounds*, once or twice monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Journal Club*, once a month, 5:00 p.m., VAMC-LR, 4D  
*Urology Morbidity & Mortality Conference*, once monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Pathology Conference*, 4th Thursday, 5:00 p.m., VAMC-LR, 4D  
*Urology Pediatric Conference*, once monthly, 5:00 p.m., ACH Sturgis Bldg., Clinic 2  
*Urology Pre-op/Didactic Conference*, Mondays, 5:00 p.m., VAMC-LR, 4D  
*Urology Radiology Conference*, 1st Thursday, 5:00 p.m., UAMS, Radiology Department  
*Urology Teaching Conference*, Wednesdays, 5:00 p.m., VAMC-LR, 4D  
*Urology VA Teaching Rounds*, every Friday, 7:30 a.m., VAMC-LR, 4D  
*Uro-radiology Conference (Urologic Imaging)*, 1st Tuesdays, 5:00 p.m., UAMS Radiology conference room  
*VA Chest Conference (combined Surgical/Medical Chest Conference)*, Mondays, 12:15 p.m., VAMC-LR, room 2D109  
*VA Diagnostic Imaging Conference*, Monday-Thursday, 8:00 a.m., VAMC-LR Nuclear Medicine conference room, room 1D173  
*VA GREEC/Geriatric Research Conference*, Tuesdays, 4:00 p.m., VAMC-LR, room 2D109  
*VA Hematology/Oncology Conference*, Thursdays, 8:15 a.m., VAMC-LR Pathology conference room 2E142  
*VA Lung Cancer Conference*, Thursdays, 3:00 p.m., VAMC-LR, room 2E142  
*VA Medical Service Teaching Conference*, Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68 room 130  
*VA Medicine-Pathology Conference*, Tuesday, 2:00 p.m., VAMC-LR, room 2D109  
*VA Medicine Resident's Clinical Case Conference*, Fridays, 12:00 noon, VAMC-LR, room 2D08  
*VA Physical Medicine & Rehab Grand Rounds*, 4th Friday, 11:30 a.m., VAMC-NLR Bldg. 68, room 118 or Baptist Rehab Institute  
*VA Surgery Grand Rounds*, Thursdays, 12:45 p.m., VAMC-LR, room 2D109, 1.25 credit hours  
*VA Topics in Rehabilitation Medicine Conference*, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR Bldg. 68, room 118  
*VA Weekly Cancer Conference*, Monday, 3:00 p.m., VAMC-LR, room 2E-142  
*White County Memorial Hospital Medical Staff Program*, once monthly, dates & times vary, White County Memorial Hospital, Searcy

#### EL DORADO-AHEC

*Behavioral Sciences Conference*, 1st & 4th Friday, 12:30 p.m., AHEC - South Arkansas  
*Chest Conference*, 3rd Wednesday, 12:30 p.m., Warner Brown Hospital  
*Dermatology Conference*, 1st Tuesdays and 1st Thursdays, AHEC - South Arkansas  
*GYN Conference*, 2nd Friday, 12:30 p.m., AHEC-South Arkansas  
*Internal Medicine Conference*, 1st, 2nd & 4th Wednesday, 12:30 p.m., AHEC-South Arkansas  
*Pathology Conference*, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas



*Pediatric Conference*, 3rd Friday, 12:30 p.m., AHEC - South Arkansas  
*Pediatric Case Presentation*, 3rd Tuesday, 3rd Friday, AHEC - South Arkansas  
*Arkansas Children's Hospital Pediatric Grand Rounds*, every Tuesdays, 8:00 a.m., AHEC - South Arkansas (Interactive video)  
*Pathology Conference*, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas  
*Obstetrics-Gynecology Conference*, 4th Thursday, 12:30 p.m., AHEC - South Arkansas  
*Surgical Conference*, 1st, 2nd & 3rd Monday, 12:30 p.m., AHEC - South Arkansas  
*Tumor Clinic*, 4th Tuesday, 12:30 p.m., AHEC - South Arkansas

#### **FAYETTEVILLE-AHEC NORTHWEST**

*AHEC Teaching Conferences*, Tuesdays & Wednesdays, 12:00 noon, Washington Regional Medical Center  
*AHEC Teaching Conferences*, Fridays, 12:00 noon, Washington Regional Medical Center  
*AHEC Teaching Conferences*, Thursdays, 7:30 a.m., Washington Regional Medical Center  
*Medical/Surgical Conference Series*, 4th Tuesday, 12:30, Bates Medical Center, Bentonville  
*Primary Care Conferences*, 1st & 3rd Mondays, 12:00, every Tuesday 7:30 a.m., Washington Regional Medical Center

#### **FORT SMITH-AHEC**

*Gastroenterology Conference*, 3rd Tuesday every other month, 7:00 a.m., St. Edward Mercy Medical Center  
*Neuroradiology Conference*, 3rd Wednesday, 12:00 noon, St. Edward Mercy Medical Center  
*Neuroradiology Conference*, 1st Tuesday, 11:30 a.m., Sparks Regional Medical Center  
*Sparks Tumor Conference*, Thursdays, 12:00 noon, Sparks Regional Medical Center  
*Tumor Conference*, Mondays, 12:00 noon, St. Edward Mercy Medical Center

#### **JONESBORO-AHEC NORTHEAST**

*AHEC Lecture Series*, 1st & 3rd Tuesday, 12:00 noon, Stroud Hall, St. Bernard's Regional Medical Center. Lunch provided.  
*Arkansas Methodist Hospital CME Conference*, 7:30 a.m., Hospital Cafeteria, Arkansas Methodist Hospital, Paragould  
*Chest Conference*, 2nd Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Citywide Cardiology Conference*, 3rd Thursday, 7:30 p.m., Jonesboro Holiday Inn  
*Clinical Faculty Conference*, 5th Tuesday, St. Bernard's Regional Medical Center, Dietary Conference Room, lunch provided  
*Craighead/Poinsett Medical Society*, 1st Tuesday, 7:00 p.m. Jonesboro Country Club  
*Independence County Medical Society*, 2nd Tuesday, 7:30 p.m., Batesville Country Club, Batesville  
*Interesting Case Conference*, 4th Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Jackson County Medical Society*, 3rd Thursday, 7:00 p.m., Newport Country Club, Newport  
*Kennett CME Conference*, 3rd Monday, 12:00 noon, Twin Rivers Hospital Cafeteria, Kennett, MO  
*Methodist Hospital of Jonesboro CME Conference*, 2nd Tuesday, 7:00 p.m., Cafeteria, Methodist Hospital of Jonesboro  
*Neuroradiology Conference*, 3rd Friday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Orthopedic Case Conference*, June 23, 7:30 a.m., Board Room, Northeast Arkansas Rehabilitation Hospital.  
*Perinatal Conference*, 2nd Wednesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Pocahontas CME Conference*, 3rd Wednesday, 12:00 noon & 7:30 p.m., Randolph County Medical Center Boardroom  
*Tumor Conference*, Thursdays, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Walnut Ridge CME Conference*, 3rd & last Tuesday, 12:00 noon, Lawrence Memorial Hospital Cafeteria  
*White River CME Conference*, 3rd Thursday, 12:00 noon, White River Medical Center Hospital Boardroom

#### **PINE BLUFF-AHEC**

*Behavioral Science Conference*, 1st & 3rd Thursday, 12:00 noon, Jefferson Regional Medical Center  
*Chest Conference*, 2nd & 4th Friday, 12:00 noon, Jefferson Regional Medical Center  
*Family Practice Conference*, 1st & 4th Tuesday, 12:00 noon, Jefferson Regional Medical Center  
*Geriatrics Conference*, 3rd Friday, 12:00 noon, Jefferson Regional Medical Center  
*Internal Medicine Conference*, 2nd & 4th Wednesday, 12:00 noon, Jefferson Regional Medical Center  
*Obstetrics/Gynecology Conference*, 2nd Tuesday, 12:00 noon, Jefferson Regional Medical Center  
*Orthopedic Case Conference*, 2nd & 4th Thursday, 12:00 noon, Jefferson Regional Medical Center.  
*Pediatric Conference*, 3rd Wednesday, 12:00 noon, Jefferson Regional Medical Center  
*Radiology Conference*, 3rd Tuesday, 12:00 noon, Jefferson Regional Medical Center  
*Southeast Arkansas Medical Lecture Series*, 4th Tuesday, 6:30 p.m., Pine Bluff County Club. Dinner meeting.  
*Surgery Conference*, 1st Friday, 12:00 noon, Jefferson Regional Medical Center  
*Tumor Conference*, 1st Wednesday, 12:00 noon, Jefferson Regional Medical Center

#### **TEXARKANA-AHEC SOUTHWEST**

*Chest Conference*, every other 3rd Wednesday, 12:30 p.m., St. Michael Hospital  
*Neuro-Radiology Conference*, 2nd & 4th Tuesday, 12:00 noon, Wadley Regional Medical Center  
*Residency Noon Conference*, Tuesdays, Wednesdays and Thursdays, 12:30 p.m., AHEC-Southwest Family Practice Clinic  
*Tumor Board*, Fridays, except 5th Friday, 12:00 noon, Wadley Regional Medical Center & St. Michael Hospital  
*Tumor Conference*, every 5th Friday, 12:00 noon alternates between Wadley Regional Medical Center & St. Michael Hospital

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# Information for Authors

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## MANUSCRIPT STYLE

Author information should include titles, degrees, and any hospital or university appointments of the author(s). All scientific manuscripts must include an abstract of not more than 100 words. The abstract is a factual summary of the work and precedes the article. Manuscripts should be typewritten, double-spaced, and have generous margins. Subheads are strongly encouraged. The original and one copy should be submitted. Pages should be numbered. Manuscripts are not returned; however, original photographs or drawings will be returned upon request after publication. Manuscripts should be no longer than ten typewritten pages. Exceptions will be made only under most unusual circumstances.

Along with the typed manuscript, we encourage you to submit an IBM-compatible 5 1/4" or 3 1/2" diskette containing the manuscript in ASCII format. The manuscript on diskette must be in the same format as stated above. We will return the diskette upon request.

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References should be limited to ten; if more than ten are listed, the author(s) may designate the ten most significant to be printed and readers will be referred to the author(s) for the complete list. References must contain, in the order given: name of author(s), title of article, name of periodicals with volume, page, month and year. References should be numbered consecutively in the order in which they appear in the text. Authors are responsible for reference accuracy.

## ILLUSTRATIONS

Illustrations should be professionally drawn and/or photographed. Glossy black and white photos are preferred. They should not be mounted and should have the name of the author(s) and figure number penciled lightly on the back. An arrow should indicate the top of the illustration. In photographs in which there is any possibility of personal identification, an acceptable legal release must accompany the material. Up to four illustrations will be accepted at no charge to the author(s). If more than four are necessary, it is understood that the author(s) will be responsible for the reproduction costs.

## REPRINTS

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books, for the provision of glasses for the needy and for selling brooms to support their programs. My point was that I had learned a long time ago that everyone was interested in health and that we could help our image with an international program dedicated to health. The president brought the matter before the board of directors. The suggestion was approved in principle, but at the time it was felt that Rotary had already extended itself to the full, financially.

In 1978 the incoming president of Rotary International determined that Rotary was ready for a major international program that would include what he called a 3H, representing Health, Hunger and Humanity. He knew of my interest regarding health and asked me to serve as chairman of a committee to bring the program to fruition. Naturally, I accepted and with two experts, one who was the executive vice-president of the University of the Pacific and the other a professor of agronomy at a Tennessee university, we embarked upon a program of three years duration which became one of the most exciting periods of my life.

We wrote present and past officers of Rotary International, including past directors, past governors, past club presidents and knowledgeable Rotarians generally asking for suggestions as to programs that

could feasibly be carried out. We asked for suggestions for fund raising on a voluntary basis. We also requested suggestions pinpointing areas of the world that were in greatest need.

The responses were overwhelming. Chiefly, they were pointed in the direction of the underdeveloped areas of the world and in the newly developing areas. The most popular quotation we received was "Give a man a fish, and he and his family can live for a day. Teach a man how to fish and they can live for a lifetime." The needs were tremendous in all three H areas. However, we felt that the health needs were uppermost in the minds of the people in the developing areas. Poliomyelitis was the disease most feared and the most widespread. The Philippines at that time were in the most serious trouble. The mortality and morbidity rates were the highest in the world. The country consisted of many islands. It was the biggest challenge, and we took it on as our major effort. We were able to raise seven million dollars in voluntary contributions worldwide in two years.

The 3H Program soon became part of the Rotary Foundation. Rotarians wanted to be sure that this program would be continued indefinitely. We made grants to many worthwhile projects after developing criteria and mechanisms for making our operations

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successful. We enlisted the help and expertise of the World Health Organization, Unicef and the Pan-American Health Organization. We also benefited greatly from the help given us by Dr. Albert Sabin, the father of the oral polio vaccine. He encouraged us to believe that polio, like small pox, could be eliminated from the earth by consistently vaccinating the new generations of children in the developing areas. We would not consider making grants to any area that did not involve Rotarians to share responsibility with community leaders and the Ministries of Health in the applying countries. We insisted that immunization days be scheduled on a continuing basis to insure complete eradication of polio from an endemic area. We demanded strict accounting for all expenditures and were successful in gaining support from community leaders who were not Rotarians.

While we had requests for programs that were concerned with literacy, with water supplies, with school and hospital equipment, most of the requests dealt with health needs, such as the manufacture of braces to support crippled legs for individuals who could only move about by dragging themselves along the dirt in their villages. Getting them in an upright

position was quite an accomplishment. There was a great need for volunteers to train doctors, nurses and technicians among the native populations to carry on where the 3H program leaves off.

It was soon evident that we were dealing with something that would not be cured in a short period of time. The polio problem was one that demanded the greatest attention. Many of the developing countries had the greatest need. Out of the 3H committee came the need for an expanded program of polio treatment and prevention. Also, more funds would be needed. More goals were set. A committee was first organized called the Polio 2005 Committee, looking forward to the elimination of poliomyelitis from the world by the year 2005, the 100th anniversary of the founding of Rotary.

Later, the World Health Organization recommended that it undertake the other standard immunizations of children at the same time that the oral polio vaccine was being administered. The WHO would be responsible for that part of the program. This was called the Polio-plus Program and has been operating successfully with complete cooperation on all sides.

A major fund raising activity was initiated about five years ago. A goal of \$120,000,000 was set about five years ago. Once again the Rotarians of the world were asked for contributions. At the last count, we have collected \$246,000,000 plus \$76,000,000 more because of good fiscal management.

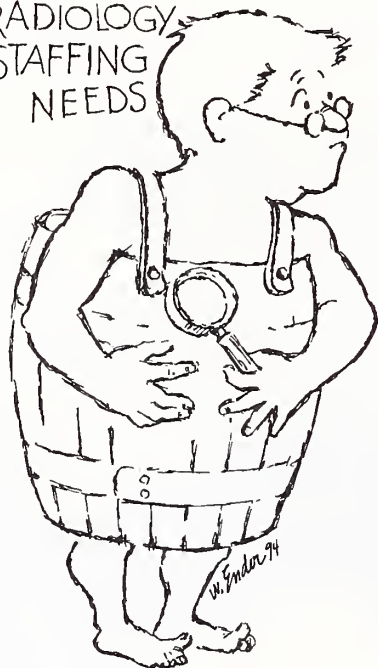
Have there been successes? Yes, indeed. A past president of Rotary International reports that last year, there was not a single case of poliomyelitis in the Philippine Islands. The World Health Organization reports no new cases of poliomyelitis in the Western Hemisphere. In India, a country still accounting for 25 percent of all polio cases in the world, the number of new cases had been reduced from 26,000 in 1987 to about 4,000 in 1993. Mainland China, formerly accounting for 25 percent of all the cases of polio in the world, has now reduced the number to eight percent.

Africa is still a hot bed of active polio due to the unsettled conditions in that continent. However, the Rotarians in Africa believe that they are making headway and are working hard.

There is so much more to be told, but someday someone will write a book on the subject.

My point is this. If you want to feel that you have accomplished something in life, write a letter and "plant a seed". You may find that you did something important. My part has been small. But it feels so good. ■

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# The Treatment of Epilepsy: A New Generation of Antiepileptic Drugs

Gregory B. Sharp, M.D.\*

A whole new generation of antiepileptic drugs (AED's) is emerging on the horizon for the treatment of epilepsy. They have been long in coming since the release of carbamazepine (Tegretol) in 1972 and valproic acid (Depakote, Depakene) in 1978. Felbamate (Felbatol) was released in 1993, but the recent report of a possible association with aplastic anemia threatens its ongoing existence. Gabapentin (Neurontin) was released at the beginning of 1994. Several other compounds are presently undergoing developmental investigation and will probably be released over the next few years.

The recent felbamate experience emphasizes the concept that we should initially treat patients with established AED's, and reserve newer agents for use in medically intractable patients, or due to other special circumstances. As clinical experience is established and further documents safety, more routine initial use may be justified. We have learned over the past twenty years that both efficacy and safety are maximized by appropriately selecting an AED indicated for the epilepsy or seizure type, and pursuing monotherapy. Polytherapy with AED's alters drug metabolism, increases the incidence of side effects, and in some cases may reduce efficacy. The newer AED's have largely been developed utilizing clinical trials with add-on therapy. We should maintain judicial caution to prevent a trend to gravitate back toward sometimes irrational polytherapy and potential associated problems.

The development of AED's is primarily based on discovering agents that interfere with neurophysiologic mechanisms that promote epileptic activity and seizures by either reducing the resultant activity of excitatory neurotransmitters (glutamate and aspar-

tate), enhancing the activity of inhibitory neurotransmitters (gamma aminobutyric acid (GABA) and glycine), or by interfering with ion channels resulting in a decrease in the tendency for neuronal depolarization or repetitive firing. Investigational trials must then document antiepileptic efficacy and safety.

It should be recognized that none of the new generation AED's result in a cure for epilepsy. They may provide for significant improved seizure control in up to 30-50% of medically intractable patients. Newer agents may be tolerated better in patients with adverse reactions to various standard AED's. Less potential side effects may prove to be associated with some of these agents, but years of clinical experience beyond developmental investigation will be required to definitively insure safety, and document efficacy and practical use for given seizure types and epilepsy syndromes.

## Felbamate

Felbamate (Felbatol) was released for use in the United States in July, 1993. Clinical trials revealed efficacy and it was approved for the treatment of partial onset seizures with or without secondary generalization with both add-on therapy and monotherapy in adults, and as adjunctive therapy for use in children with Lennox-Gastaut syndrome.<sup>1-7</sup> In one study evaluating monotherapy in patients with uncontrolled partial onset seizures, felbamate reduced seizure frequency by 50-65%.<sup>3</sup> In patients with Lennox-Gastaut syndrome, add-on therapy with felbamate reduced atonic seizure frequency by 34%, and the total seizure frequency by 19%.<sup>7</sup>

The most commonly experienced side effects include decreased appetite, vomiting, nausea, insomnia, somnolence and headache. Adverse reactions tend to be mild to moderate and less common with monotherapy. Somnolence is primarily noted when felbamate is used with other AED's. Serious adverse

\* Gregory B. Sharp, M.D., is Assistant Professor of Pediatrics & Neurology at the University of Arkansas for Medical Sciences and Co-Medical Director, Arkansas Comprehensive Epilepsy Program (ACEP).



hepatic or hematopoietic effects were not realized in clinical trials.<sup>3-7</sup>

Felbamate is predominantly metabolized by the liver and induces the metabolism of carbamazepine, but inhibits the metabolism of phenytoin and valproate. Carbamazepine levels are decreased but carbamazepine-epoxide levels may increase as much as 57% and may account for an increase in toxic side effects.<sup>8</sup> Phenytoin and valproate levels may increase 24-50%.<sup>9,10</sup> Dosages of carbamazepine, phenytoin and valproate should typically be decreased by one-third when adding felbamate. The terminal elimination half-life of felbamate is 20 to 23 hours. This may be decreased to about 14 hours in patients receiving other AED's.<sup>1,8</sup> The usual adult dosage is 1800-3600 mg/day. The dosage is best tolerated when it is increased over about three weeks. In children, the starting dose is 15 mg/kg/day and can be increased to 45 mg/kg/day. The dosage is usually divided t.i.d. to reduce dose related side effects. Felbamate (Felbatol) is supplied as 400 mg and 600 mg scored tablets, and as a 600 mg/5 ml oral suspension.

Animal studies have not revealed a teratogenic effect of felbatol, but studies in pregnant women have not been done.

The Food and Drug Administration (FDA) has recently (August, 1994) released a warning regarding a possible association of felbamate with the production of aplastic anemia based on ten reported cases. One reported case was in a child and the other cases were in adults. Six patients were receiving other AED's, and one patient was only receiving felbamate. Further investigation is in progress. The present recommendation is to discontinue the use of felbamate in patients unless it is felt that removal of the medication will place the patient at greater risk. It remains to be seen whether or not felbamate will be deemed "safe" by the FDA, if specific recommendations and restrictions will be made pertaining to its use, or if it will be removed from the market in the United States,

## Gabapentin

Gabapentin is related structurally to the neurotransmitter GABA, but its mechanism of action is unknown. It does not directly effect GABA receptors. It is effective in the treatment of partial onset seizures and is approved by the FDA for use in adults.<sup>11-14</sup> In the UK study of patients with intractable partial seizures that received gabapentin as add-on therapy, seizure frequency was reduced by greater than 50% in 25% of patients. The US group reported 50% of greater seizure frequency reduction in 26% of intractable patients with partial seizures receiving a dosage of 1800 mg/day, and less improvement with lower doses. Gabapentin does not appear to be effective as a treatment for absence seizures.<sup>15</sup>

Reported adverse effects are common but are relatively mild. In the UK study, 67% of patients reported side effects versus 41% in the placebo group.<sup>12</sup> The most commonly reported side effects include somnolence (14.8%), fatigue (13.1%), and dizziness (6.6%). Weight gain, ataxia and headache were reported by less than 5%.<sup>11</sup> Most adverse effects are mild and transient. Psychometric impairment has not been noted. There does not appear to be any interactions with other drugs, effect on hepatic or hematopoietic functions or effects on routine clinical laboratory findings.<sup>11,12</sup>

Gabapentin is structurally and for all practical purposes unlike any other pre-existing AED. Its metabolism is not hepatic and it does not effect metabolism of other drugs. It is excreted by the kidneys. The terminal elimination half-life is relatively short, five to seven hours, and t.i.d. dosing is recommended.<sup>14</sup> The usual recommended adult dose is 1800-3600 mg/day, and higher doses have been used. Trials in children will likely utilize a dose of about 30 mg/kg/day. Gabapentin (Neurontin) is supplied as 100, 300 and 400 mg capsules.

Animal model experiments have revealed an increased incidence of hydroureter and delayed bone ossification in fetal rats. Pregnancy studies in humans have not been done.

There were eight unexplained deaths reported in patients taking gabapentin in the developmental trials among 2,203 patients, but this ratio is close to the unexpected death rate in a population of patients with similar intractable epilepsy (Neurontin package insert).

## Lamotrigine

Lamotrigine will likely be the next AED to meet approval by the FDA for release, probably within the next year, for use as an effective add-on drug in adults with partial and secondarily generalized seizures.<sup>16-26</sup> It is a phenyltriazine unrelated to previous AED's and probably acts by inhibiting the release of excitatory amino acids, especially glutamate.<sup>1,27,28</sup> In a group of patients with refractory partial seizures, an add-on dosage of 500 mg/day of lamotrigine reduced seizure frequency by greater than 50% in one-third, and in one-fifth of those receiving 300 mg/day.<sup>17</sup> In a small group of 11 patients with Lennox-Gastaut syndrome treated with lamotrigine as an add-on medication, 10 experienced greater than 50% reduction in seizure frequency.<sup>29</sup>

The most common adverse effects are dose related and include diplopia, drowsiness, dizziness, ataxia, headache, nausea and vomiting. These can typically be minimized by a reduction in dosage.<sup>1,17-19,21,22,30</sup> Side effects may be more common when lamotrigine is used in combination with phenytoin

or carbamazepine. Lowering the carbamazepine dosage will commonly decrease side effects when it is used in combination with lamotrigine.<sup>31</sup> Rash may develop in approximately 3% of patients, usually soon after beginning use of the drug and resolves with discontinuation. Hepatic and hematopoietic functions, and routine laboratory tests do not appear to be affected by the use of lamotrigine.<sup>31</sup> One study reported favorable effects on mood and perceived internal control.<sup>16</sup>

The mean terminal elimination half-life of lamotrigine is about 24 hours with a range of up to 50 hours.<sup>26</sup> The half-life can be reduced when lamotrigine is given with phenytoin or carbamazepine or increased when given with valproate. Lamotrigine is predominantly metabolized by the liver, but does not affect metabolism or levels of other AED's.<sup>30</sup>

In adults taking enzyme inducing AED's such as carbamazepine, phenytoin or phenobarbital, lamotrigine should be started at a dosage of 50 mg at bedtime for two weeks, and then increased to 50 mg b.i.d. After two more weeks, the dose can be increased to 100 mg b.i.d. The dosage is then increased gradually at increments of 50 mg every two weeks until seizure control or dose-related side effects occur.<sup>31</sup> Typical doses that may enhance seizure control range from 400-700 mg/day. Higher doses can be used if

tolerated.<sup>1</sup> When used in combination with valproate, the initial dose and subsequent increases are halved, with an eventual maximum dosage of around 200 mg daily.<sup>18</sup>

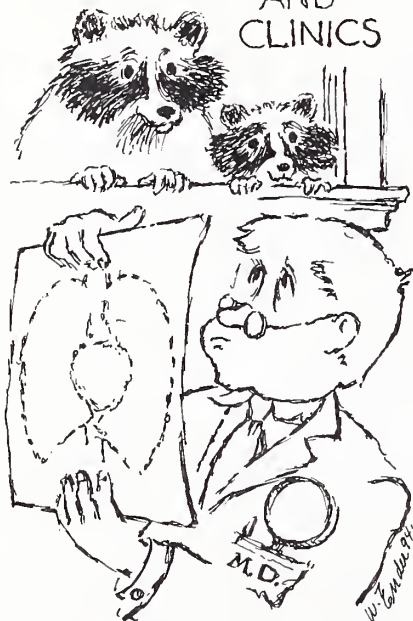
## Vigabatrin

Vigabatrin (gamma-vinyl-GABA) is a synthetic GABA derivative that inhibits GABA aminotransferase, thus reducing metabolism of GABA in the brain.<sup>32</sup> It has been available for use in France, the United Kingdom and Ireland since 1989. Numerous studies and clinical experience have documented significant efficacy against refractory partial onset seizures and to a lesser extent for generalized epilepsies.<sup>32-37</sup> There has also been prominent documentation of its effectiveness and safety in childhood epilepsy, especially in treating infantile spasms or West syndrome.<sup>38-43</sup> Treatment is not recommended for patients with non-progressive myoclonic epilepsies as it may actually aggravate the condition.<sup>42</sup>

Vigabatrin shows great promise in the treatment of infantile spasms and has become the first line of therapy in many centers in Europe. In a group of 70 children with infantile spasms with add-on therapy, 68% had a reduction in seizure frequency of greater than 50%, and 43% became seizure free. It was especially effective in those with tuberous sclerosis, with 86% having a reduction of greater than 50% and 71% having complete resolution.<sup>43</sup> A report of treating 11 infants with infantile spasms with first-line vigabatrin monotherapy resulted in cessation of spasms in four, 90% reduction in two, 75% reduction in one, and 30% reduction in one. Cessation of spasms occurred within three to five days of beginning treatment.<sup>38</sup>

The most common adverse effect in adults is drowsiness, but conversely in children it is agitation. Mild weight gain is also reported. Dulac, et al., reported hyperkinesia in 26% and sedation in 10% of children treated with vigabatrin.<sup>39</sup> Worsened behavior is more likely to occur in mentally retarded children with pre-existing behavioral problems and can be corrected by a reduction in dosage.<sup>42</sup> Psychiatric manifestations have also been reported as relatively rare consequences in adult patients. Depression has developed in approximately 4% of adults soon after beginning therapy with vigabatrin. This is typically seen in patients with a prior history of depression and is reversible with discontinuation of treatment.<sup>36</sup> The development of psychosis has also been rarely noted. Sander, et al., reported 14 patients that developed relatively acute psychosis after being treated with vigabatrin. This appeared to be a more indirect effect. Eight of these patients had an abrupt decrease in seizure frequency with four experiencing cessation of seizures. A resultant acute psychosis subsequently develops and is felt to be a physiologic manifestation

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of the cerebral electrical activity becoming normal. This has been called "forced normalization" and has been described in other patients experiencing an abrupt cessation of seizures in response to other medications or treatment modalities. Four patients expressed psychotic features after having a flurry of seizure activity following a seizure free interval. This is also a well described phenomena. Five of the patients had a previous history of psychosis.<sup>44</sup>

Studies in non-primate laboratory animals given vigabatrin have revealed neurotoxicity with the production of intramyelinic edema,<sup>45</sup> but this has not been found in primates or humans.<sup>46-48</sup> Dodrill et al., reported no effect on cognitive functioning associated with vigabatrin.<sup>49</sup>

Vigabatrin has a relatively short terminal elimination half-life of five to seven hours, but the anticonvulsant effect is actually much longer. The inhibition of GABA amino-transferase and thus of GABA metabolism actually results in a persistent effect several days after administration of the drug has been stopped. Excretion of vigabatrin is primarily via the kidneys. There is little effect on other AED levels and vice versa. There is a broad variation in effective dosage with a typical range of 40-100 mg/kg/day.<sup>50</sup> Doses of 100-200 mg/day have been used to treat infants with infantile spasms.<sup>38</sup>

## Oxcarbazepine

Oxcarbazepine is chemically related to carbamazepine. Clinical trials comparing oxcarbazepine and carbamazepine have revealed similar efficacy against partial onset and generalized seizures. Oxcarbazepine appears to be somewhat better tolerated.<sup>51-56</sup> The mechanism of action of both drugs is similar, by effecting sodium and potassium channels and reducing the propagation of rapid neuronal firing. There may be additional cellular mechanisms.<sup>57</sup>

There are less allergic reactions seen with oxcarbazepine compared to carbamazepine. Only about 25% of patients that are allergic to carbamazepine are also allergic to oxcarbazepine.<sup>54</sup> Toxic symptoms such as dizziness, drowsiness, nausea, headache, diplopia and ataxia are similar with both drugs.<sup>51</sup> Oxcarbazepine does more commonly induce hyponatremia which is typically subclinical.

The metabolism of oxcarbazepine and its metabolic effects are quite different in comparison to carbamazepine. Oxcarbazepine is rapidly converted to its active metabolite. The subsequent terminal elimination half-life is approximately eight to ten hours. Metabolism is primarily by the liver. Autoinduction does not occur, and it induces metabolism of other drugs much less than carbamazepine. Less drug interactions occur with oxcarbazepine.<sup>58,59</sup>

A conversion from treatment with carbamazepine

to oxcarbazepine can be made quickly by stopping carbamazepine one day and beginning oxcarbazepine on the next.<sup>54</sup> The usual recommended dosage in adults is 600-1200 mg/day.

Laboratory animal studies with oxcarbazepine have not demonstrated a teratogenic effect. Adequate human studies have not been done.<sup>60</sup>

## New Formulations of Standard AED's

There are also some new formulations of standard AED's that have been developed and will probably be released soon. Fosphenytoin is a new phenytoin prodrug preparation with several advantages. It can be given IV or IM, is water soluble and lacks many of the side effects that can be produced by the rapid intravenous bolus of phenytoin.<sup>61</sup> A formulation of valproic acid for intravenous use will provide a new agent for treatment of status epilepticus, and will allow administration of a loading dose.<sup>62</sup> A sustained release form of carbamazepine (Tegretol XR) will allow b.i.d. dosing, result in less peak and trough serum concentration effect and allow maintenance of a higher steady state concentration when indicated without toxic peak levels.

## Conclusion

Several new AED's are, or will be, available in the relatively near future for the treatment of epilepsy. They will hopefully provide additional alternatives for effective treatment for patients especially with epileptic seizures that are presently refractory to medical treatment. It is also possible that less side effects will be realized with these agents to allow greater safety as well.

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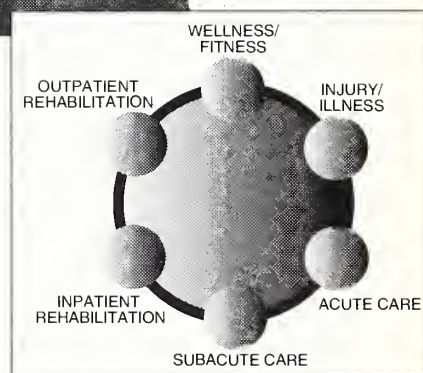


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# A Message From the Medical Student Section

Stephen B. Osmon

President, Medical Student Section of the Arkansas Medical Society

The Medical Student Section of the Arkansas Medical Society (AMS-MSS) is hoping to see new growth in membership and participation with the matriculation of the freshman class of the College of Medicine. The newest members of the medical community have survived the grueling application and interview process to be chosen out of a record number of applicants this year. By all accounts, they promise to be one of the most highly qualified and competitive classes the College of Medicine has enrolled.

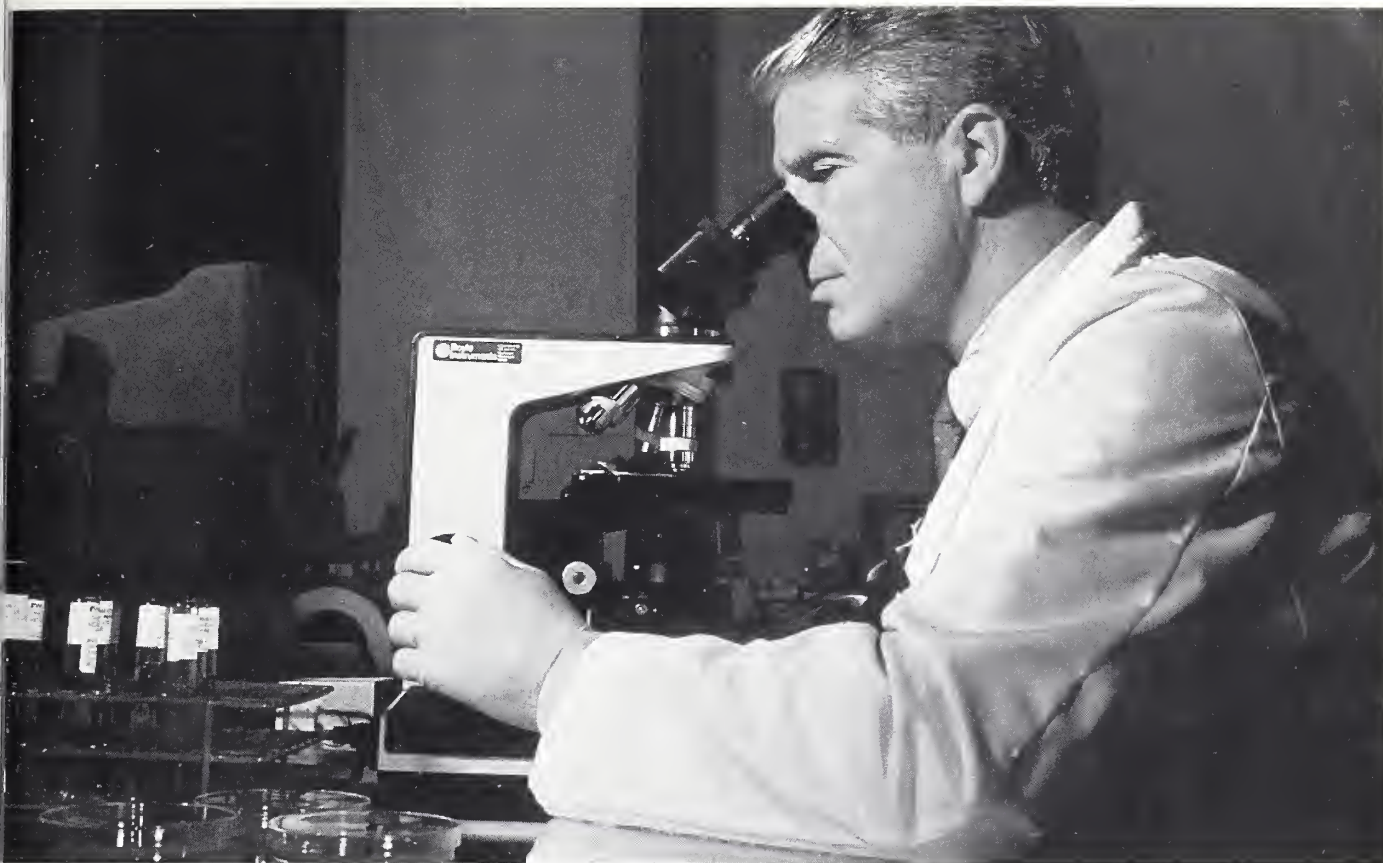
The national health care debate is at hand and the Medical Student Section is trying to do its part in informing our senators and representatives about our stance on key issues. We watch key medical student issues such as the debate involving tying primary care mandates with certain federal "need based" loans. Through the American Medical Association Medical Student Section's Legislative Alert phone tree, I was made aware of an issue coming before Congress. A letter was drafted, class announcements made, and students signed a petition against the legislation which was faxed to all four representatives. House of Representative's Bill 3869 "Minority Health Improvement Act" by Rep. Waxman (D-Calif.) has a really neat name, but its name covers up its true meaning. Essentially, it forces students who must take out the federal "need based" loans into "primary care" without giving any consideration to their competitiveness, desires or abilities. This bill passed the House on May 23, 1994 and a similar bill passed the Senate on March 26, 1994 (S. 1569 by Senator Kennedy) both by voice votes. These bills are now in conference between the two. I have ordered both bills and the names of those who will negotiate a compromise. We will keep plugging away, and I hope we can kill any legislation which restricts the specialty choice of medical students.

At the annual meeting of the AMA-Medical Student Section in Chicago, we passed several resolutions to the AMA House of Delegates whose meeting

followed ours. Most of the legislation we passed was positive and without controversy. A few pieces were hotly debated in committee meetings and on the floor in front of all the delegates. One resolution was debated nearly three hours over language contained in an executive committee report to the AMA-HOD concerning how to restrict the number of physicians/specialists in the United States. Some suggested limiting the number of freshman medical school slots, others the number of residency positions and freedom of specialty choice. When the smoke cleared, the medical students felt NO limits should be placed on entering freshman positions or residency slots. We feel accreditation, economics and market forces will eventually curb the size of medical school classes and specialty residency positions. The Young Physician Section of the AMA felt differently. Their stance was if restrictions are going to be placed, they should be placed on the front end by limiting the number of medical school positions and not by limiting specialty choice. With obvious division within the medical community, Congress and the American people will have an even harder time reaching a reasonable decision.

I look forward to my senior year of medical school and hope to see interest grow in the AMA-MSS and in students becoming more aware and involved in shaping future state and federal policies. We must take our patient's well-being into account first and foremost. We must be willing to take time out of our busy schedules to meet one another to formulate plans of action. We cannot throw up our hands in disgust and frustration, but instead we must play the game of politics better than anyone else in town for the benefit of our patients. The only way we will keep the patient-physician relationship independent of big business and big government is to take a personal interest in voicing our concerns and suggestions. The future holds change, and we have the responsibility to change it for the better. ■





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# Municipal Bond Investing

Robert Cohen\*

Many practitioners of the medical profession are financially successful and are therefore elevated to the highest tax brackets. As a result, they tend to favor tax-free and tax-advantaged investments.

Municipal bonds provide one of the few remaining ways to reduce or minimize tax liabilities. The coupon income received from municipal bonds is usually completely free from federal income taxes and, in many cases, free from state and local income taxes. Some transactions may generate capital gain or ordinary income, which are taxable. Before purchasing tax-advantaged investments, of course, investors should seek the advice of a qualified tax advisor.

Municipal bonds are promissory notes issued by state and local governmental entities to finance operating costs or capital projects. The safety, flexibility and diversity of municipal bonds makes them ideal for achieving a variety of financial goals.

For investors with specific future financial needs, municipal bond coupon payments and maturities can be matched to the timing of those needs. Wealth can be accumulated by reinvesting and compounding tax-free interest income or by purchasing zero coupon bonds.

For those who require current income, the federal tax exemption of municipal bond interest payments makes it easier for bond holders to project the exact amount of income they will receive. In addition, by purchasing as few as six different municipal bond issues, a portfolio can be structured to provide interest income on a monthly basis.

Regardless of their specific financial goals, safety conscious investors will appreciate the outstanding ability of municipal issuers to meet their obligation to

pay principal and interest on a timely basis. This record makes municipal bonds attractive to investors who make preservation of capital a high priority. Only U.S. government securities are considered safer than high quality municipal bonds.

## A Closer Look At "Munis"

Like other bonds, municipal bonds are distinguished by a variety of features, including coupon rate, maturity, credit quality rating and financial backing. A bond's features, combined with prevailing interest rates and the market forces of supply and demand, generally determine its price and yield. There are four main types of municipal bonds:

**General Obligation bonds** are issued by states, counties, cities and towns for civic purposes. General obligation bonds are backed by the full faith and credit pledge of the issuer, which is derived from its ability to levy taxes. Therefore, a G.O. bond's credit quality rating mirrors that of its issuer.

**Revenue bonds** are issued to construct or maintain a variety of municipal projects including schools, bridges, airports, buildings, highways and - hospitals. Principal and interest payments to investors are secured by the revenue brought in by the financed project.

**Insured bonds** are backed by an insurance policy that guarantees the timely payment of principal and interest in the unlikely event that the issuer is unable to pay. Bonds insured by such policies are therefore eligible to carry this insurer's rating. Currently all the major insurance companies are rated Aaa by Moody's Investors Service and AAA by Standard & Poor's.

**Pre-refunded bonds** or escrowed bonds are backed, in most cases, by U.S. Treasury securities. Since the

\* Robert Cohen is an Investment Representative with the Atlanta office of Lehman Brothers. He is a Second Vice-President and a Certified Financial Planner. Any opinions expressed in this article are those of the author and not those of Lehman Brothers.



escrow account is usually funded with Treasury securities, these bonds often enjoy an Aaa/AAA rating and are considered among the safest bonds in the municipal market.

Many other bond features give investors a vast array of securities from which to choose when tailoring a portfolio of bonds to achieve investment goals.

**Call Features.** Some bonds allow the issuer to redeem them prior to maturity at a stipulated price. Since callable bonds generally bear higher yields than similar non-callable bonds, investors who feel comfortable with the additional uncertainty of the call may wish to purchase callable bonds.

**Credit Quality.** When purchasing a bond, the investor needs to take into account the credit quality of the issuer. Two prominent rating agencies are Standard and Poor's Corporation and Moody's Investors Service. Generally, for two otherwise equivalent bonds with different credit ratings, the higher rated bond will carry the lower yield, due to the lower level of credit risk. An upgrade or downgrade in the credit quality of a bond may affect its price.

**Maturity.** The maturity of a bond's last payment can range from seven days to 30 days. For example on the short end, investors seeking a high degree of safety and liquidity as well as an excellent alternative to money market funds can purchase a short-term municipal security called Money Market Preferred Shares (MMP's). These federally tax-exempt auction rate securities generally provide higher yields than other cash alternatives without sacrificing credit quality.

### **Building And Managing A Municipal Bond Portfolio**

Constructing a municipal bond portfolio requires factoring in both personal and financial factors in addition to current market conditions. For example, each individual's risk tolerance, investment goals, time constraints, income requirements and liquidity needs must be considered. Only then can a strategy be designed with the appropriate diversification among municipal market sectors, credit ratings and maturities to meet an investor's financial goals.

A maturity "ladder", for instance, is a simple investment strategy that controls interest rate risk by evenly spacing bond maturities within a portfolio. The periodic maturity of a bond or groups of bonds produces a regular cash payment that is then reinvested in the market at current rates. By adding "fresh" issues to a portfolio, this strategy keeps the portfolio up to date with interest rates and requires relatively low maintenance.

The benefit of a ladder portfolio is that it works well in both rising and falling interest rate environments and can be tailored to a conservative, moderate or aggressive investment style. If interest rates rise, the cash produced by the portfolio's regular maturities can be reinvested at a higher rate. This regular reinvestment protects a portfolio from the price erosion that can accompany rising interest rates. A ladder also provides some income protection when interest rates decline, since the issues slated to mature in later years lock in longer-term yields, which tend to be higher than short-term yields.

In devising a municipal bond portfolio one should use bond "duration" as a guide to structuring a ladder and selecting appropriate bonds. Using duration will help an investor maximize returns and control exposure to market risk.

Duration is measured in years, much like maturity, but is a more accurate measure of a bond's risk. A bond's duration is a number between zero and its years to maturity. A lower duration implies less price volatility and vice versa. Generally bonds with lower duration (lower risk) are considered more conservative holdings than higher duration bonds.

Duration measures the potential for a bond's price to change and affect an investor's net worth. Gener-

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ally, the value of a bond's duration represents the percentage change its price is expected to move when rates move one percentage point. A bond with a duration of five years, for example, will change in price approximately five percent if interest rates change one percentage point. This bond is said to have twice as much risk as another with a duration of ten years.

An average duration for a bond portfolio can be calculated from the durations of the individual bonds. Many of a bond's features contribute to or affect its price volatility or risk: the bond's price, coupon rate, payment frequency and time to maturity, for example. Here are a few general guidelines that usually apply for a simple bond:

- 1) The longer a bond's maturity the longer its duration.
- 2) A bond with accrued interest will have a slightly lower duration than a similar bond with no accrued interest.
- 3) The higher a bond's coupon, the longer its duration.

Why are the above factors important? Since duration is a mathematical measurement of risk, knowing the portfolio's duration will help an investor understand how the portfolio's value will change with regard to interest rates. If an investor wishes to be more aggressive, duration can be increased. If an investor

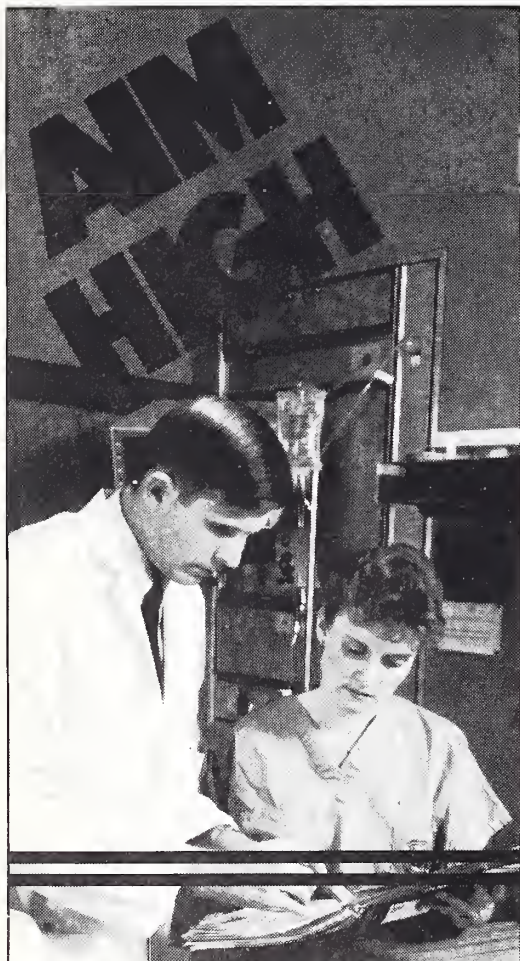
wishes to be more conservative, he or she can reduce duration.

Besides duration, other bond features can be manipulated when constructing a portfolio to meet an investor's risk preference. The most important risk for the typical bond investor is interest rate risk. Inflation and the fear of inflation affect the level of interest rates and the price of bonds. As inflation, or the fear of inflation, rises, interest rates increase and the value of bonds decrease. As inflation subsides, interest rates fall and the value of bonds will increase.

Certain factors affect the price of municipal bonds. Lower coupon bonds are more volatile than higher coupon bonds. Zero coupon bonds, which pay no interest until maturity, will be more volatile than coupon bonds, assuming equal maturity and credit risk.

Why is this important? A rising interest rate environment will reduce the value of bonds, but premium bonds will be less volatile and decrease less in value relative to discount bonds. In a declining interest rate environment, where bonds rise in price, a discount bond will appreciate faster in value than a premium bond.

Another factor to consider is that volatility increases with time to maturity. All else being equal, a 30-year municipal bond will be more volatile than a 10-year municipal bond. ■



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**CHARLES L. SECREST, M.D.**

Dr. Secrest received his B.A. degree from the University of Mississippi, and earned his medical degree from the University of Mississippi School of Medicine. He completed his internship and residency in General Surgery at Baylor University Medical Center in Dallas, Texas; served a residency in Urology at the University Medical Center in Jackson, Mississippi; and a fellowship in Adult and Pediatric Reconstructive Urology at Eastern Virginia graduate school of Medicine in Norfolk, Virginia.



**JAMES E. KEETON, M.D.**

Dr. Keeton received his B.A. degree from the University of Mississippi and his medical degree from the University of Mississippi School of Medicine. He completed his internship and urology residency at University Medical Center, in Jackson, Mississippi. Dr. Keeton served a fellowship in Pediatric Urology (*Senior Registrar*) at the Hospital for Sick Children in London, England; and a fellowship in Urology (*Clinical Assistant*) at the Middlesex Hospital in London.

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# Black/White Life Expectancy Differences and Sociodemographics: Arkansas and the U.S.

Mary A. McGehee\*

## ABSTRACT

Life expectancy data by race and gender for Arkansas show whites having longer average life expectancies at birth than blacks. Racial differences in life expectancy have been found to be due to higher mortality rates for blacks due to their tendency to fall into high-risk groups. Cause-specific mortality rates by race and gender for Arkansans 25 years and older were calculated for the ten leading causes of death in the state. Blacks in Arkansas had higher mortality rates than whites for each major cause of death except pulmonary diseases and suicide.

## INTRODUCTION

High mortality for blacks has caused a great deal of concern in this country. The average life expectancy for blacks in the U.S. dropped between 1985 and 1988 after many years of improvement. The difference in life expectancy at birth between blacks and whites was 14.6 years in 1900. By 1984 that difference had declined to 5.6 years, but the gap widened again to 6.4 years in 1988 (NCHS 1991). Attempts to understand the difference in life expectancies for blacks and whites have centered mainly on comparing black and white mortality rates by sex and age. It is highly likely, however, that socio-economic factors play an important role in explaining the black/white mortality gap in the U.S. (Swanson and Stockwell, 1986; Stockwell et al., 1987), although other factors are also believed to contribute to the gap (Kiple and King, 1981). Findings by Swanson (1992) on differentials in life expectancy by county in Arkansas also suggest that socio-economic status plays a role.

This report has three parts. The first is a discussion of differences in life expectancy by race and gender in Arkansas for 1970, 1980 and 1990. This information is taken from a report prepared by Swanson and McGehee (1992). Differences in mortality rates by race will be discussed in the second part of the report, and the third part contains a discussion of the role sociodemographics are believed to play in these differences.

## LIFE EXPECTANCY IN ARKANSAS BY RACE AND GENDER

As shown in Table I, from 1970 to 1990, white males in Arkansas experienced the largest increase in average life expectancy (4.02 years), followed by non-white females (3.65 years), non-white males (2.49 years) and white females (2.26 years).

Black males and black females experienced no significant gains in average life expectancy between 1980 and 1990. For whites, the life expectancy for males increased by almost one and a half years (from 70.40 in 1980 to 71.88 in 1990) and for females by less than one year (from 78.79 in 1980 to 79.17 in 1990).

Between 1980 and 1990, the difference in life expectancy between white and black females narrowed, while the disparity in life expectancy for white and black males increased. White females had a life expectancy about 5.50 years higher than black females in 1990 (79.17 years compared to 73.67 years), slightly lower than the difference of 5.67 years in 1980 (78.79 years compared to 73.12 years). The difference in life expectancy between white males and black males increased from 5.52 years in 1980 (70.40 compared to 64.88) to 7.42 years in 1990 (71.88 compared to 64.46).

The differences by race found for Arkansas are consistent with research reported by Keith and Smith (1988), who found that black life expectancy has been substantially below that of whites in the U.S. throughout the 20th century.

\* Mary A. McGehee is an Associate Research Specialist, Arkansas Institute for Economic Advancement, University of Arkansas at Little Rock.

**TABLE I**  
**Life Expectancy at Birth by Race and Gender,**  
**Arkansas: 1970, 1980 and 1990**

Year	Non-white		Black		White	
	Female	Male	Female	Male	Female	Male
1990	74.37 (.384)	65.30 (.395)	73.67 (.394)	64.46 (.409)	79.17 (.145)	71.88 (.154)
1980	73.64 (.394)	65.60 (.419)	73.12 (.406)	64.88 (.431)	78.79 (.152)	70.40 (.160)
1970	70.72 (.448)	62.81 (.462)	N/A	N/A	76.91 (.171)	67.86 (.184)

Note: The standard error of life expectancy at birth is given in parentheses.

## RACE DIFFERENCES IN MORTALITY

Studies of national data have found that, overall, black mortality rates are higher than those for whites for most causes of death. Racial differences in life expectancy among adults have been found to be due mainly to heart disease and stroke, cancer, diabetes, homicide, accidents and substance abuse (DHHS 1985). Keith and Smith (1988) found circulatory diseases to be the largest contributor to the racial difference in life expectancy for both sexes and homicide and cancer for males.

There were similar findings for Arkansas. The 1990 mortality data from the Arkansas Department of Health (1992) show that, overall, black males have the highest mortality rate for all causes of death (1188.8 deaths per 100,000 males), followed by white males (1138.3), white females (962.7) and black females (901.9). For this study, however, the leading causes of death for the adult population aged 25 and over was examined.

Table II displays cause-specific mortality rates and ratios by race and sex for the ten leading causes of death for adult Arkansans aged 25 and older. These rates were calculated using 1990 mortality data from the Arkansas Department of Health and the 1990 Modified-Age-Race-Sex (MARS) population file distributed by the U.S. Bureau of the Census.

For all causes of death, black males had the highest total mortality rate (2267.1 deaths per 100,000 persons), followed by white males (1714.9 deaths), black females (1543.1 deaths) and white females (1393.2 deaths). Blacks had higher cause-specific mortality rates for each major cause of death except pulmonary diseases and suicide and were 20 percent more likely

than whites to die from all causes.

Circulatory diseases (cerebrovascular disease and heart disease) accounted for about 30 percent of the difference in the racial gap in mortality rates. These diseases accounted for 35 percent of the difference in mortality rates between black and white females and more than 27 percent of the difference between black and white males. Hypertension may be the reason for the racial gap in these mortality rates. This disease ranks number 11 out of the top 15 causes of deaths for

blacks in Arkansas but is not among the top 15 causes of death for whites.

Cancer (malignant neoplasms) accounted for almost 18 percent of the racial gap in mortality in Arkansas. The gap was due mainly to the high mortality rates for black males. While the incidence of cancer in black females was about the same as that for white females, this disease accounted for 26.8 percent of the difference in mortality rates between black males and white males. Black males have been found to have higher rates of lung, esophagus and prostate cancer than white males and are more likely than white males to smoke (Centers for Disease Control 1990). These differences in mortality rates for cancer may also exist because blacks from the low socioeconomic strata are less likely than whites to be able to pay for treatment, less knowledgeable about preventive measures and less likely to receive followup treatments.

Overall, black Arkansans were forty percent more likely than white Arkansans to die as the result of an accident. Black and white females had an equal chance of dying from an accident. However, the chance of a black male dying as the result of an accident was about twice that for white males. Disparities in racial differences for accidents may be due to alcohol consumption - which can increase the risk for accidents - and low socioeconomic status, which may mean less use of smoke detectors, poor or inappropriate heating devices, poor housing and lack of swimming instruction.

In Arkansas, blacks are about three times more likely to die from diabetes than whites. This disease accounted for about 11 percent of the racial mortality



gap, even though the number of deaths from this disease is small. For males, diabetes accounted for almost four percent of the mortality difference. For females, however, close to 28 percent of the mortality gap was due to diabetes. Insulin-dependent diabetes mellitus (IDDM) and noninsulin-dependent diabetes mellitus (NIDDM) account for 90 to 95 percent of all diabetes cases in the U.S. The greater incidence of morbidity and mortality for blacks is due mainly to NIDDM, which is related to obesity (DHHS 1985). Black women are especially likely to be obese and most of the blacks who are diabetic are overweight women.

The black mortality rate for nephritis and nephrosis was about three times that for whites. This condition is common in persons with diabetes and obstructive disorders such as prostate hypertrophy, diseases for which blacks have a higher incidence than whites.

Suicide rates for blacks were lower than those for whites, but blacks in Arkansas are about six times more likely than whites to be a homicide victim. Black males are about seven times more likely than white

males to be a victim of homicide or legal intervention. According to Farley and Allen (1987), the racial disparity in suicide and homicide rates may be an indication of differences in the ways blacks and whites solve personal or interpersonal problems. However, the higher black mortality rates for homicides may also be related to the higher incidence of violence which may be caused by poverty, family instability and substance abuse (DHHS 1985).

## EXPLAINING DIFFERENCES IN MORTALITY

Richard Rogers has examined racial differences in mortality and how demographic, familial and socioeconomic variables contribute to these differences. He argues that a person's life expectancy is affected not only by race, but also by marital status, family size and income (Rogers 1992).

Although the causal linkages between marital status and mortality are not entirely understood, studies have shown that mortality rates for married persons are lower than those for nonmarried persons (Rogers 1991).

**TABLE II**  
**Cause-specific Mortality Rates and Ratios by Race and Gender**  
**For Adults 25 and Over; Arkansas: 1990**  
**(Deaths per 100,000 persons)**

Cause of death	Males				Females			
	White	Black	Black/ White Ratio	%Black/White Mortality Rate Difference	White	Black	Black/ White Ratio	%Black/White Mortality Rate Difference
Ten leading causes:								
Heart diseases	573.0	636.8	1.1	11.6	487.9	511.0	1.0	15.4
Malignant neoplasms	439.0	588.1	1.3	26.8	311.7	303.5	1.0	-5.4
Cerebro. diseases	113.3	200.5	1.8	15.8	148.5	177.7	1.2	19.5
Accidents	76.6	135.1	1.8	10.6	36.6	37.4	1.0	0.5
Pulmonary diseases	94.6	63.1	0.7	-5.7	51.5	20.4	0.4	-20.7
Pneumoni and flu	65.0	69.8	1.1	0.9	55.0	54.4	1.0	-0.4
Diabetes	27.8	48.7	1.8	3.8	33.2	74.8	2.3	27.8
Suicide	32.0	11.1	0.3	-3.8	7.5	2.6	0.3	-3.3
Nephritis	16.2	42.3	2.7	4.9	16.2	41.7	2.6	17.0
Homicide	10.8	77.5	7.2	12.1	5.5	18.7	3.4	8.8
Other	265.7	393.2	1.5	100.0	1393.2	1543.1	1.1	100.0
All Causes	1714.9	2267.1	1.3	100.0	1393.2	1543.1	1.1	100.0

Source: Compiled from data published by Center for Health Statistics and Vital Statistics, Arkansas Department of Health in Mortality in Arkansas: 1990.

Note: Black/White mortality rate difference calculated by ((cause-specific black mortality rate - cause-specific white mortality rate)/(total black mortality - white mortality)\*100).

Additionally, small families have been found to have lower mortality rates than large families. Income, a determinant of the ability to eat properly, live in quality housing and pay for good health care, is strongly related to mortality (Rogers 1992).

For his study, Rogers used data from two national samples - the 1986 National Health Interview Survey (NHIS) and the 1986 National Mortality Followback Survey. In his model that simultaneously looked at the influence of the five sociodemographic factors - age, sex, marital status, family size and income - the race difference in general mortality was eliminated (Rogers 1992).

In essence, what the study indicated was that the racial differences in life expectancy are due to blacks' greater chances of falling into high-risk groups and that blacks could narrow the gap in life expectancy by reducing marital dissolution rates and family size, and increasing income. However, 1990 census data (U.S. Bureau of the Census 1993) for Arkansas show that married-couple families accounted for only about 52 percent of all black family households, down from 71 percent in 1970. Female-headed households, most of which have children present, now account for 42 percent of all black family households, up from 24

percent in 1970. These households tend to have high poverty rates.

Rogers' work also suggests that race alone is not a determinant of life expectancy. How long a person lives also depends on his quality of life. If race alone is viewed as the causal factor, then the real reasons for differences in life expectancy are overlooked.

## ACKNOWLEDGMENT

Carolyn Farr-Onuora and Janice Cook typed the manuscript. David Swanson, Doug Murray and Marsha Walters provided critical comments.

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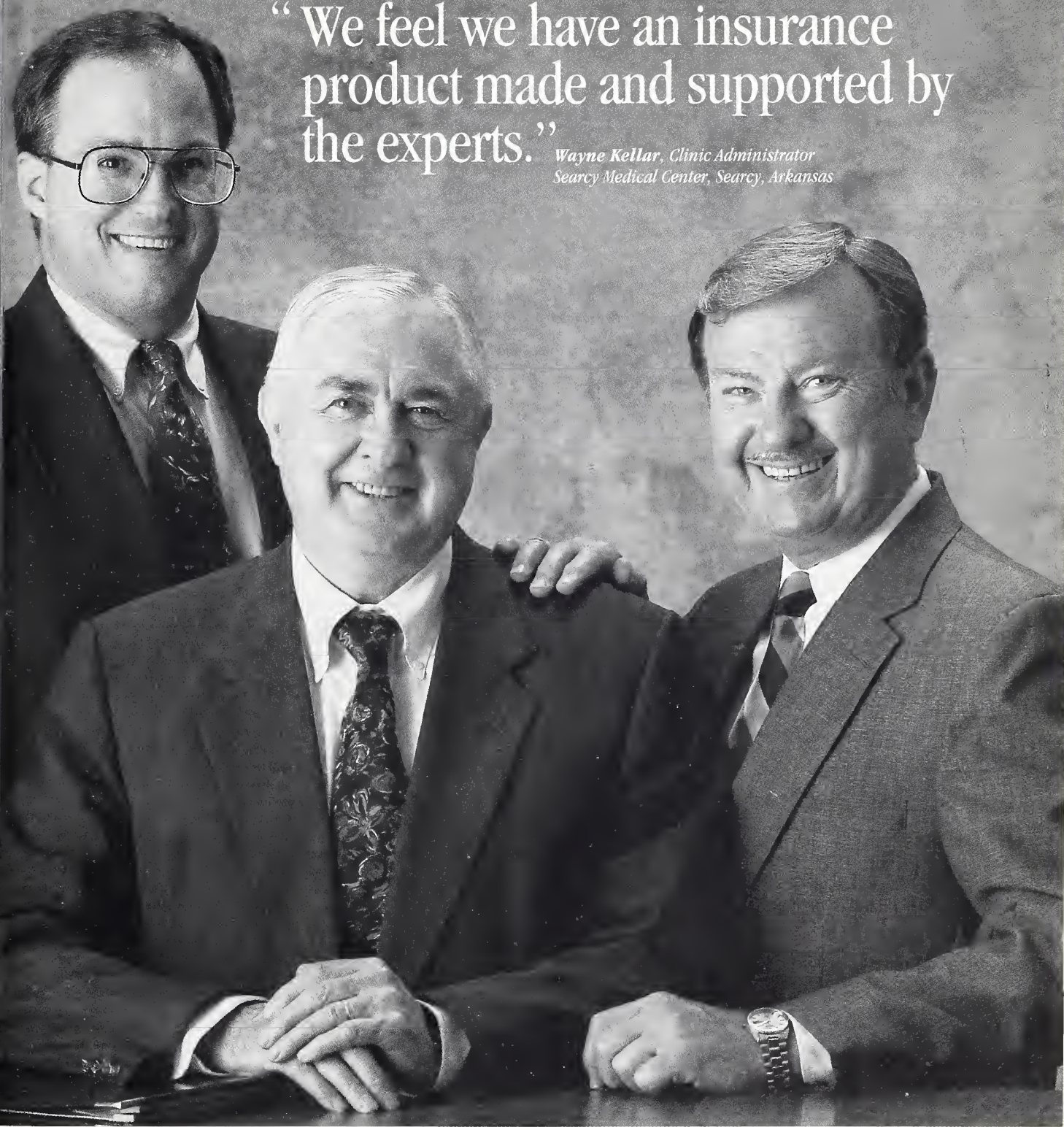




Regarding the MGMA-sponsored professional liability plan, administered by MGIS and underwritten by The Medical Protective Company:

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Wayne Kellar, Clinic Administrator  
Searcy Medical Center, Searcy, Arkansas



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*Pictured from left to right:*

*Al Fowler, of Searcy Medical Center; Wayne Kellar, of Searcy Medical Center; and Bill Starkey, of The Medical Protective Company.*

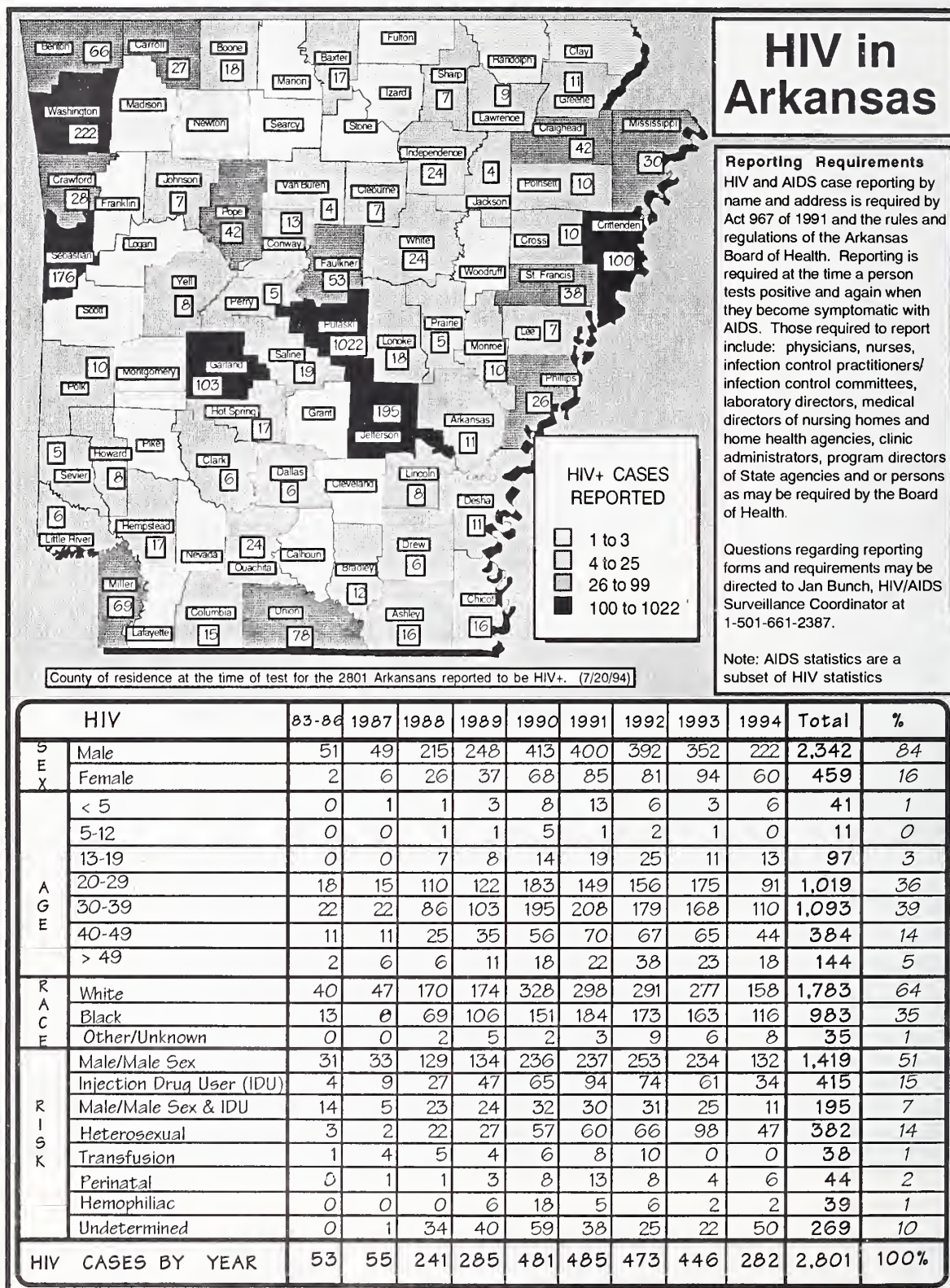
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# Arkansas HIV/AIDS Report

## 1983-1994

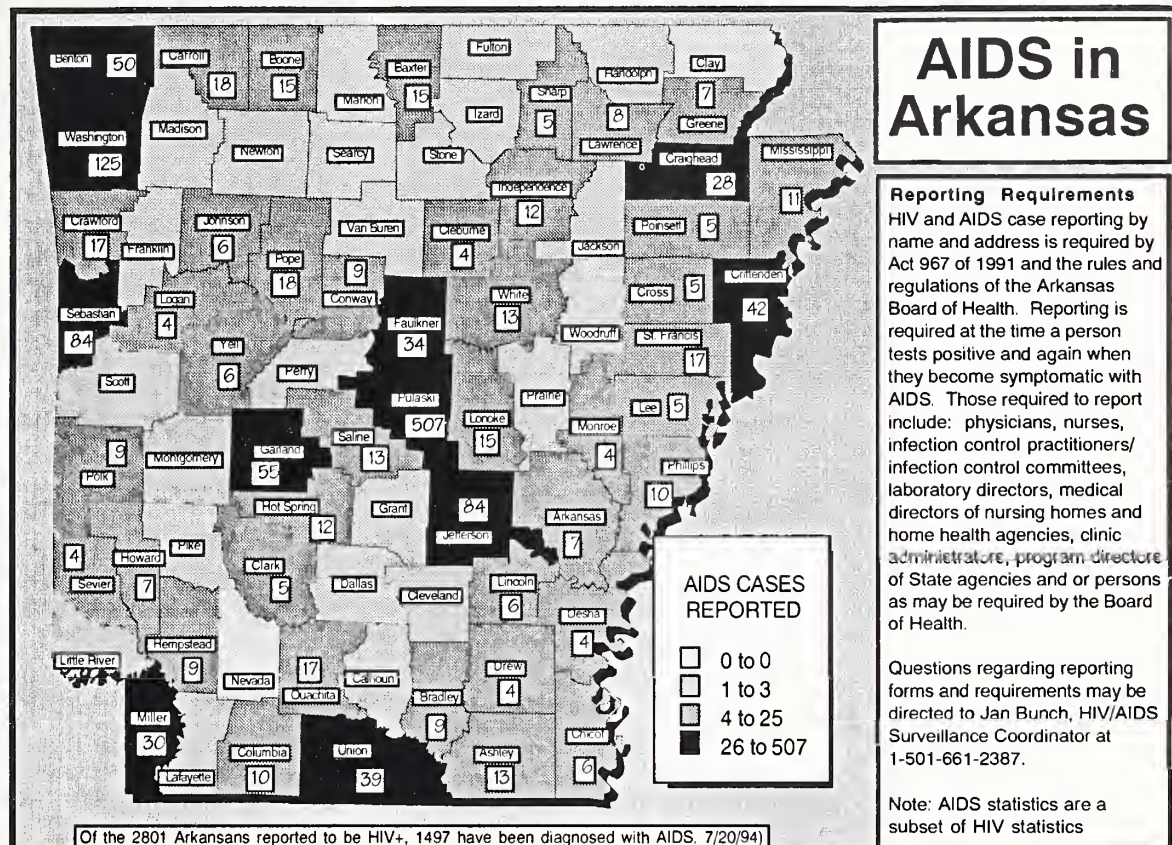


Source: AIDS Surveillance Unit, Arkansas Department of Health.



# Arkansas HIV/AIDS Report

## 1983-1994



AIDS		83-86	1987	1988	1989	1990	1991	1992	1993	1994	Total	%
SEX	Male	39	46	77	70	170	176	250	336	140	1,304	87
	Female	1	4	6	10	20	25	35	64	28	193	13
AGE	< 5	0	0	1	1	6	6	3	2	0	19	1
	5-12	0	0	1	0	1	1	0	1	0	4	0
	13-19	0	0	0	0	4	3	2	4	2	15	1
	20-29	16	15	27	24	55	57	81	110	34	419	28
	30-39	16	23	36	41	78	80	128	178	81	661	44
	40-49	7	8	10	7	35	41	52	78	34	272	18
	> 49	1	4	8	7	11	13	19	27	17	107	7
RACE	White	31	43	61	58	141	134	206	275	112	1061	71
	Black	9	7	20	21	47	66	75	121	54	420	28
	Other/Unknown	0	0	2	1	2	1	4	4	2	16	1
RISK	Male/Male Sex	24	31	59	50	121	120	182	236	95	918	61
	Injection Drug User (IDU)	2	10	4	11	18	29	45	71	25	215	14
	Male/Male Sex & IDU	12	4	6	6	18	17	21	25	12	121	8
	Heterosexual	2	3	3	7	11	12	24	52	21	135	9
	Transfusion	0	2	7	3	7	11	3	2	1	36	2
	Perinatal	0	0	1	1	6	6	3	3	0	20	1
	Hemophiliac	0	0	1	1	5	5	4	5	5	26	2
	Undetermined	0	0	2	1	4	1	3	6	9	26	2
AIDS CASES BY YEAR		40	50	83	80	190	201	285	400	168	1,497	100%

Source: AIDS Surveillance Unit, Arkansas Department of Health.

# New Members

---

## CROSSETT

**Ko Ko, Aye**, Internal Medicine. Medical education, Institute of Medicine #2, Yangon, Myamar (Burma), 1976. Internship/Residency, Woodhill Medical & Mental Health Center, New York, 1994.

## EL DORADO

**Callaway, Matthew D.**, Family Practice. Medical education, University of Arkansas for Medical Sciences, Little Rock, 1989. Internship, Baptist Medical Center, Birmingham, Ala., 1991. Residency, AHEC-South, 1993.

## FAYETTEVILLE

**Spencer, Steven F.**, Family Medicine. Medical education, University of Arkansas for Medical Sciences, 1991. Internship/Residency, University of Alabama/Huntsville Hospital, 1994. Board eligible.

**Turner, Sam L.**, Family Practice. Medical education, University of Arkansas for Medical Sciences, 1991. Internship/Residency, AHEC-NW, Fayetteville, 1994. Board pending.

## FORT SMITH

**Mason, Clinton K.**, Anesthesiology. Medical education, University of Oklahoma, Oklahoma City, 1990. Internship, Baptist Medical Center of Oklahoma, 1991. Residency, University of Oklahoma Health Sciences Center, 1994.

**Price, Claire B.**, Ophthalmology. Medical education, University of Arkansas for Medical Sciences, 1989. Internship/Residency, UAMS, 1994.

**Sanders, Robert E.**, Internal Medicine. Medical education, OSU College of Osteopathy, Tulsa, 1991. Internship/Residency, Tulsa Regional Med Center, 1994.

## HARRISON

**Abdelaal, Ali F.**, Hematology/Oncology. Medical education, Air Shams University, Cairo, Egypt, 1978. Internship/Residency, The Methodist Hospital, 1991. Board certified.

## HEBER SPRINGS

**Ashabrannen, Wesley J.**, General Practice. Medical education, University of Arkansas for Medical Sciences, Little Rock, 1979. Internship/Residency, AHEC-Northwest, Fayetteville.

## HOT SPRINGS

**Cyrus, Scott S.**, Pediatrics. Medical education, Oklahoma State Univ. College of Osteopathic Medicine, 1991. Internship/Residency, Tulsa Regional Medical Center, 1994.

## HUNTSVILLE

**de Saint-Felix, Douglas E.**, General/Family Practice. Medical education, University of Arkansas for Medical Sciences, 1992. Internship, Washington Regional Medical Center, Fayetteville, 1993.

## JONESBORO

**Casanova, Robert T., Jr.**, Ophthalmology. Medical education, Louisiana State University, Shreveport, 1988. Internship, Tulana/Charity Hospital, New Orleans, 1990. Residency, Tulane University Medical Center, 1994. Board eligible.

**Sales, Joseph H.**, Otolaryngology - Head & Neck Surgery. Medical education, University of Arkansas for Medical Sciences, Little Rock, 1985. Internship/Residency, Portsmouth Naval Hospital, Virginia, 1991. Board certified.

## LITTLE ROCK

**Akins, Victoria**, Family Practice/Geriatrics. Medical education, University of Arkansas for Medical Sciences, 1989. Residency, UAMS, 1992. Fellowship, UAMS/VA Hospital, 1994. Board certified.

**Davila, David G.**, Pulmonary/Sleep Disorders. Medical education, LSU School of Medicine, New Orleans, 1985. Internship, Charity Hospital - Tulane University, 1986. Residency, Ochsner Clinic, 1988. Board certified.

**Gurley, Thomas D.**, Internal Medicine. Medical education, University of South Alabama, Mobile, 1991. Internship/Residency, Carraway Methodist Medical Center, 1994. Board pending.

**Herring, Grady F., Jr.**, Pathology. Medical education, University of Arkansas for Medical Sciences, 1971. Internship/Residency, Baylor University Medical Center, 1975. Board certified.

**Hutchins, Laura F.**, University of Arkansas for Medical Sciences, 1977. Internship/Residency, UAMS, 1980. Board certified.

**Krebel, Meredith S.**, Pediatrics/Emergency Medicine. Medical education, University of Texas Southwestern Medical School, Dallas, 1988. Internship/Residency, UAMS/Arkansas Children's Hospital, 1992. Fellowship, UAMS/Arkansas Children's Hospital,



1994. Board certified.

**Matchett, W. Jean**, Radiology. Medical education, University of Arkansas for Medical Sciences, 1988. Internship/Residency, UAMS, 1993. Fellowship, UAMS, 1994. Board certified.

**Mercier, David W.**, Anesthesiology. Medical education, University of Texas, Houston, 1990. Internship, St. Joseph Hospital, Houston, 1991. Residency, University of Washington, Seattle, 1994.

**Peleaux, Ramon D.**, Oral & Maxillofacial Surgery/Cosmetic Surgery. Medical education, University of North Carolina, Chapel Hill, 1991. Internship/Residency, University of North Carolina, 1994.

**Scott, Don I.**, Pathology. Medical education, University of Oklahoma College of Medicine, Oklahoma City, 1964. Internship/Residency, UAMS and University of California, 1972. Board certified.

**Seguin-Calderon, Rosa E.**, OB/GYN. Medical education, University of Texas Medical Branch, Galveston, 1990. Internship/Residency, UAMS, 1994. Board eligible.

**Stewart, Tracy D.**, Pediatrics. Medical education, University of Arkansas for Medical Sciences, Little Rock, 1991. Internship/Residency, UAMS/Arkansas Children's Hospital, 1994.

**Wendel, Paul J.**, OB/GYN - Maternal Fetal Medicine. Medical education, University of Missouri - Columbia School of Medicine, 1988. Internship, Parkland Memorial Hospital, 1989. Residency, University of Texas - Southwestern Medical Center, 1994.

**Ziomek, Stanley**, Cardiovascular and Thoracic Surgery. Medical education, Tulane University School of Medicine, New Orleans, 1981. Internship/Residency, UCLA, 1987. Board certified.

## MALVERN

**Lumb, John C.**, General Surgery. Medical education, University of Texas at Houston, 1989. Internship/Residency, St. Joseph Mercy Hospital, Pontiac, Mich., 1994.

## MCGEHEE

**Scott, Robert B.**, General Surgery. Medical education, University of Guadalajara and UAMS, 1983. Residency, St. John Hospital, Detroit, 1988.

## MOUNT IDA

**Finch, Richard R.**, Family Practice. Medical education, Texas College of Osteopathic Medicine, Ft. Worth, 1989. Internship/Residency, San Jacinto Methodist Hospital, Baytown, Texas, 1992. Board certified.

## MOUNTAIN HOME

**DeYoung, Bruce D.**, Family Practice. Medical education, University of Arkansas for Medical Sciences,

Little Rock, 1991. Internship/Residency, AHEC-Northwest, Fayetteville, 1994. Board pending.

**White, Edward L.**, Family Practice. Medical education, University of Arkansas for Medical Sciences, 1991. Internship/Residency, AHEC-NW/Washington Regional Medical Center, 1994.

## NEWPORT

**Montgomery, F. Renee**, OB/GYN. Medical education, University of Arkansas for Medical Sciences, 1990. Internship/Residency, UAMS, 1994.

## NORTH LITTLE ROCK

**Conley, Susan D.**, Anesthesiology. Medical education, University of Arkansas for Medical Sciences, 1990. Internship/Residency, UAMS, 1994.

## PARAGOULD

**Fonticiella, Aldo V.**, Cardiology. Medical education, CETEC University, Santo Domingo, Dom. Rep., 1982. Internship/Residency, Jersey Shore Medical Center, 1991.

## PINE BLUFF

**Ancalmo, Nelson**, Cardiovascular/Thoracic Surgery. Medical education, University of El Salvador School of Medicine, 1965. Internship, Hospital Rosales, Univ. of El Salvador and Mercy Hospital, Chicago, 1969. Residency, Hospital Rosales; Ochsner Hospital, New Orleans and Hospital for Sick Children, Toronto, Canada, 1978. Board certified.

**Del Giudice, Jose A.**, Internal Medicine/Rheumatology. Medical education, University of Santo Domingo, Dom. Rep., 1975. Internship/Residency, Our Lady of Mercy Med Center, Bronx, New York, 1992. Board certified.

**Malik, Bilal M.**, Medical Oncology/Hematology. Medical education, Nishtar Medical College, Multan, Pakistan, 1974. Internship, St. Clare's Hospital, New York, 1981. Residency, University of Alabama, Birmingham, 1983. Board certified.

## ROGERS

**Alderson, Roger W.**, Plastic/Reconstructive. Medical education, University of Arkansas for Medical Sciences, Little Rock, 1987. Internship/Residency, UAMS/University Hospital/McClellan VA Hospital/Arkansas Children's Hospital, 1992. Fellowship, University of Mississippi Med Center, Jackson.

**Deatherage, Joseph R.**, Oral/Maxillofacial Surgery. Medical education, University of Texas Health Science Center at San Antonio, 1992. Internship/Residency, University of Texas Health Science Center, 1994. Board eligible.

## RUSSELLVILLE

**Marshall, Glenn E.**, Neurology. Medical education, Universidad Del Norester, Tampico, Mexico, 1978. Internship, Muhlenberg Hospital, Plainfield, New Jersey, 1985. Residency, St. Vincents Hospital, Staten Island, NY and Penn. State Univ. Hosp., Hershey, Penn., 1989. Board certified.

## RESIDENTS

**Andrews, Sean A.**, Family Practice. Medical education, University of Arkansas for Medical Sciences, 1994. Internship/Residency, AHEC-El Dorado.

**DeFreese, Travis W.**, Anesthesiology. Medical education, University of Alabama at Birmingham, 1994. Internship/Residency, UAMS.

**Driskill, Angela K.**, Family Medicine. Medical education, University of Arkansas for Medical Sciences, 1994. Internship, UAMS/AHEC-Pine Bluff.

**Garner, Kimberly K.**, Family Practice. Medical education, University of Arkansas for Medical Sciences, 1994. Internship/Residency, UAMS/AHEC-Pine Bluff.

**Hill, Norman R.**, Family Practice. Medical education, OSU-COM, Tulsa, 1994. Internship, AHEC-Pine Bluff/UAMS.

**Laws, Casey E.** Medical education, West Virginia School of Osteopathic Medicine, Lewisburg, West Virginia, 1994. Internship, UAMS/AHEC-Pine Bluff.

**Nichols, Scott R.**, Family Practice. Medical education, University of Arkansas for Medical Sciences, 1994. Internship/Residency, UAMS/AHEC-Pine Bluff.

**Phomakay, Von.** Medical education, OSU-COM, Tulsa, Oklahoma, 1994. Internship, AHEC-Pine Bluff.

**Raines, Patricia A.**, Family Practice. Medical education, St. George's University School of Medicine, Grenada, Wis., 1992. Residency, UAMS.

**Rice, Stephen D.**, Radiology. Medical education, Memorial University of Newfoundland, 1988. Internship/Residency, Memorial University of Newfoundland, 1994.

**Schalchlin, Curtis A.**, Family Practice. Medical education, University of Arkansas for Medical Sciences, 1994. Internship, AHEC-Pine Bluff.

**Shrum, Kelly D.**, Family Practice. Medical education, OSU-COM, Tulsa, 1994. Residency, UAMS/AHEC-Pine Bluff.

**Stewart, Candace R.**, Family Practice. Medical education, University of Health Sciences College of Osteopathic Medicine, Kansas City, 1994. Residency, UAMS/AHEC-Pine Bluff.

**Thompson, Tracy L.**, Family Practice. Medical education, Oklahoma State University College of Osteopathic Medicine, Tulsa, 1994. Internship, UAMS/AHEC-Pine Bluff.

**White, Gary C.**, Family Practice. Medical education, Universidad Mundial Dominicana, Santo Domingo, Dom. Rep., 1989. Residency, UAMS.

**Yeager-Bock, Angy M.**, Family Practice. Medical education, University of Arkansas for Medical Sciences, 1993. Internship/Residency, UAMS.

**Yeates, Harry**, Family Practice. Medical education, Queen's University, Kingston, 1994. Residency, AHEC-South Arkansas.

## STUDENTS

Lori B. Bacon

Kris F. Gillian

James A. Hutcheson

Joseph C. Kueter

John A. Lowery

Shelley W. Russell

R. Blake Sayre

Blake G. Scheer

Kelly A. Staley

Jacqueline S. Taylor

Jennifer M. Turner

Mariette Turner

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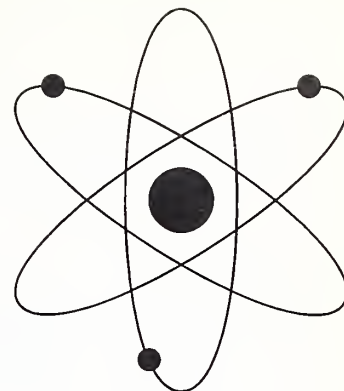
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# Radiological Case of the Month

David L. Harshfield, M.D.



## Case Report of Calcifications on Abdominal Plain Film Study

### Clinical Presentation:

A 56-year-old white male presented to the emergency room with history of flank pain and fever with laboratory findings revealing hematuria. A supine abdomen study was performed, which is provided.



*Figure 1: Examination is a standard supine radiograph, which reveals a collection of curvilinear and punctate calcification superimposed over the left mid epigastrium.*

# Renal cell carcinoma.

## Discussion:

Renal cell carcinoma can present in a variety of symptom patterns masquerading as numerous other illnesses. A classic triad has been suggested of hematuria, pain and palpable abdominal mass; however, less than 10% of patients present with all three of these findings. Approximately one third of patients present with two of the three components of the triad. As we increase our utilization of abdominal imaging for a variety of disease, many of these renal cell carcinomas are picked up as incidental findings.

The supine abdomen radiograph is one of the most common examinations obtained for workup of abdominal symptoms, and the calcifications seen in Figure 1 may be one of the earliest findings in patients with renal disease. Unfortunately, infection and subsequent calcification development within the parenchyma (nephrocalcinosis) or collecting system (nephrolithiasis) can appear similarly. The differential diagnosis of calcification in this area on plain film should include vascular as well as gastrointestinal system calcification.

Aside from calcification, the supine abdomen film in patients with renal carcinoma may reveal a generalized unilateral enlargement of the affected kidney. Calcification, when present, usually appears as a local or diffuse flocculation within the mass and occasionally has curvilinear calcification in its periphery. Unfortunately, these calcifications may be seen in other malignant and benign conditions in the abdomen. It has been reported that approximately 15% of patients with renal carcinoma have tumor calcification visible on their plain abdominal films.

*Figure 2: A selective renal arteriogram of the left kidney reveals some of the classic findings of renal carcinoma at arteriography. There is evidence of neovascularity as well as puddling of contrast medium within the vascular space of the tumor. There is no arteriovenous shunting seen at this early phase of the arteriogram, although this is another common finding in patients with renal carcinoma. On later arteriographic phases, the tumor was noted to be hypervascular, as is typically the case.*



*Figure 3: The path specimen of the left kidney reveals the large lower pole tumor. This lesion is partially necrotic, as is a common occurrence in these lesions which frequently outgrow their blood supply.*



## Conclusion:

Plain films of the abdomen are often utilized to evaluate patients presenting with abdominal symptomatology. This case points out the considerable differential diagnostic list, including this patient with renal cell carcinoma, as an etiology for mid abdominal calcifications seen on abdominal plain films.



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# AMS Newsmakers

**Dr. G. Richard Smith**, professor and vice-chairman of the Department of Psychiatry at the University of Arkansas for Medical Sciences, has received an award for research development in psychiatric services research from the American Psychiatric Association.

The APA award, which was established in 1986 to honor outstanding contributions in psychiatric services research, was announced at the APA's 38th annual Convocation of Fellows, held in Philadelphia, Pa.

**Dr. Charles Tucker**, of Ash Flat, was elected to the Arkansas Affiliate Board of Directors of the American Heart Association at the 44th Annual Delegate Assembly recently in Little Rock.

Dr. Tucker is a family practitioner.

**Dr. Harry Ward**, UAMS chancellor, and **Dr. I. Dodd Wilson**, dean of the UAMS College of Medicine, recently attended a meeting with President and Mrs. Clinton to discuss health care reform.

The two physicians were the only Arkansans invited to attend the meeting. The Clintons discussed the importance of universal coverage as the highest priority in the health care debate with supportive medical academic leaders across the nation.

**Dr. Robert B. White**, a board certified internist in private practice in Paragould, was recently named president-elect of the Arkansas Affiliate of the American Heart Association (AHA) at the 44th Delegate Assembly of the Arkansas AHA held at the Baptist Medical Center in Little Rock recently.

## Physician's Recognition Award

The Physician's Recognition Award is awarded each month to physicians who have completed acceptable programs of continuing education. The recipients for the month of July are:

Kevin J. Collins	Sherwood
Bradley C. Diner	North Little Rock
Micahel C. Hendren	Russellville
Robert E. Holder	Bentonville
Francis P. Maloney	Little Rock
Tom L. Meziere	Little Rock
Terry F. Sutterfield	Mountain View
Andre B. Whiteley	Springdale

# Medicine in the News

## Health Care Access Foundation Update

As of August 1, 1994, the Arkansas Health Care Access Foundation has provided free medical service to 7,915 medically indigent persons, received 15,195 applications and enrolled 30,662 persons.

This program has 1,683 volunteer health care providers including medical doctors, dentists, hospitals, home health agencies, and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.



## Governor Tucker Closes Soda Pop Tax Loophole During Special Legislative Session

In the recent Special Session, legislation was passed which dedicates all monies collected under the Soft Drink Tax to a special Medicaid Trust Fund.

This negates the soft drink industry's claim that state government will use revenues collected under this tax for purposes other than Medicaid.

Prior to the passage of this special act, revenues collected after July 1995 could have been placed in general revenues to be used for purposes other than Medicaid.



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# YOCON<sup>®</sup> YOHIMBINE HCl

**Description:** Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubiaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

**Action:** Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalamic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

**Indications:** Yocon<sup>®</sup> is indicated as a sympatholytic and mydriatic. It may have activity as an aphrodisiac.

**Contraindications:** Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

**Warning:** Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

**Adverse Reactions:** Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral alpha-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.<sup>1,2</sup> Also dizziness, headache, skin flushing reported when used orally.<sup>1,3</sup>

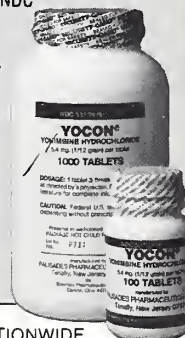
**Dosage and Administration:** Experimental dosage reported in treatment of erectile impotence.<sup>1,3,4</sup> 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.<sup>3</sup>

**How Supplied:** Oral tablets of Yocon<sup>®</sup> 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

#### References:

1. A. Morales et al., New England Journal of Medicine: 1221, November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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# Resolution

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## Harlan C. Holmes, M.D.

Whereas, the members of the Pulaski County Medical Society are saddened to learn of the death of their esteemed colleague, Harlan C. Holmes, M.D.; and

Whereas, Dr. Holmes gave freely of his time and talent to positions of leadership in the medical community, including faithful membership in this organization for fifty years; and

Whereas, his devotion to his country was evidenced by distinguished service in the United States Armed Forces and the Arkansas National Guard; and

Whereas, his deep concern for the care of his patients and for the betterment of society at large was widely known; be it therefore

RESOLVED, that this resolution be adopted and made a part of the permanent records of this Society; and

RESOLVED, that a copy of this resolution be forwarded to Dr. Holmes' family as an expression of our sincere sympathy; and

RESOLVED, that a copy be made available to *The Journal of the Arkansas Medical Society* for publication.

Adopted  
Executive Committee  
August 17, 1994

By Order of the Memorials Committee  
Bruce E. Schratz, M.D., Chairman  
Robert Watson, M.D.  
James Headstream, M.D.

## Morris A. Jackson, M.D.

Whereas, the members of the Pulaski County Medical Society note with heart-felt sadness the recent death of a respected member, Morris A. Jackson, M.D.; and

Whereas, his devotion to his profession and to his colleagues was demonstrated by thirty-nine years of loyal service to this Society; and

Whereas, Dr. Jackson was loved and respected by his patients for his gracious and caring spirit; and

Whereas, his many years of service to Arkansas Children's Hospital, Philander Smith College, and numerous civic organizations will long be remembered and appreciated; be it therefore

RESOLVED, that this resolution be adopted and placed in the permanent files of this Society; and

RESOLVED, that a copy of this resolution be mailed to Dr. Jackson's family as an expression of our sincere sympathy; and

RESOLVED, that a copy be forwarded to *The Journal of the Arkansas Medical Society* for publication.

Adopted  
Executive Committee  
August 17, 1994

By Order of the Memorials Committee  
Bruce E. Schratz, M.D., Chairman  
Robert Watson, M.D.  
James Headstream, M.D.





### **Mahlon D. Ogden, Jr., M.D.**

Whereas, the membership of the Pulaski County Medical Society notes with sincere sorrow the recent death of our colleague, Mahlon D. Ogden, Jr., M.D.; and

Whereas, Dr. Ogden served this organization as a faithful member for more than fifty years; and

Whereas, his service to his patients was marked by unfailing compassion and empathy; be it therefore

*RESOLVED*, that this resolution be adopted and filed in the permanent records of this Society; and

*RESOLVED*, that a copy be mailed to Dr. Ogden's family as a token of our heart-felt sympathy; and

*RESOLVED*, that a copy be made available to *The Journal of the Arkansas Medical Society* for publication.

Adopted  
Executive Committee  
August 17, 1994

By Order of the Memorials Committee  
Bruce E. Schratz, M.D., Chairman  
Robert Watson, M.D.  
James Headstream, M.D.

### **Walter H. O'Neal, M.D.**

Whereas, the members of the Pulaski County Medical Society are sincerely saddened to note the recent death of an esteemed member, Walter H. O'Neal, M.D.; and

Whereas, he was a loyal member of this Society for forty-six years, serving on numerous committees and projects with zeal and leadership; and

Whereas, his distinguished military service during the Korean War, his pioneering contributions to the field of Internal Medicine, and his many years of compassionate medical practice all demonstrate his abiding concern for others; be it therefore

*RESOLVED*, that this resolution be adopted and placed in the archives of this Society; and

*RESOLVED*, that a copy of this resolution be sent to Dr. O'Neal's family as a token of our sincere sorrow; and

*RESOLVED*, that a copy be made available to *The Journal of the Arkansas Medical Society* for publication.

Adopted  
Executive Committee  
August 17, 1994

By Order of the Memorials Committee  
Bruce E. Schratz, M.D., Chairman  
Robert Watson, M.D.  
James Headstream, M.D.

## **In Memoriam**

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### **Harlan C. Holmes, M.D.**

Dr. Harlan C. Holmes, of Little Rock, died Sunday, July 24, 1994. He was 78.

He is survived by his wife of 47 years, Opal Harvill Holmes; two sons, Robert Holmes and Joe Holmes, both of Little Rock; one brother, Dr. Glen I. Holmes of Wimberly, Texas; and three granddaughters, Anna Mabrey, Jennifer Holmes and Lindsey Holmes, all of Little Rock.

### **Milton C. John, M.D.**

Dr. Milton C. John, of Stuttgart, died Wednesday, August 10, 1994. He was 86.

Survivors include a daughter, Mrs. John (Meredith John) Spann; two granddaughters, Elizabeth Leigh

Brown, Conway, Susan Carr Brown, Little Rock; and a niece, Mrs. J. Wayne (Jane) Buckley of Pine Bluff.

Dr. John was a member of the Arkansas Medical Society Fifty Year Club.

### **Meredith Green Thompson**

Meredith Green Thompson, of Fort Smith, died Sunday, July 31, 1994. She was 80.

She is survived by her husband, Dr. J. Kenneth Thompson; four step-daughters, Jane Cutting Smith and Kay Thompson Lee, both of Memphis, Tennessee, Dana Thompson Istre and Jill Thompson Harper, both of Santa Barbara, California; one step-son, Robert N. Cutting of Ft. Smith; one sister, Martha Helen Burgess of Wichita, Kansas; twelve grandchildren and several step-greatgrandchildren.

# Things To Come

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## **September 29-October 1**

**American Cancer Society National Conference on Prostate Cancer.** The Adams Mark Hotel, Philadelphia. For more information, call (404) 329-7604.

## **October 1-2**

**Ultrasound Update: 1994.** Red Lion Hotel, Sacramento, Calif. Sponsored by the Office of CME, UC Davis School of Medicine and Medical Center. For more information, call (916) 734-5390.

## **October 2-5**

**Critical Issues in Health Care Quality.** The Mayflower Hotel, Washington, D.C. A program for medical directors and senior clinical managers in HMOs. Sponsored by Group Health Association of America. Category I credit: 14.75 hours. For information, call (202) 778-3281.

## **October 6-9**

**6th National Conference of the Society for Professional Well-Being.** Ritz Carlton Hotel, Dearborn, Michigan. Co-sponsored by the Michigan State Medical Society. For more information, call (919) 489-9167.

## **October 6-9**

**38th Annual Meeting of the American Society of Internal Medicine.** The Fairmont Hotel, Dallas. For more information, call (800) 338-ASIM, Ext. 266.

## **October 7-10**

**Peer Review Retreat.** Airlie House, Warrenton, Virginia. Sponsored by the Council of Biology Editors. For more information, call (312) 201-0101.

## **October 15-17**

**Comprehensive Gynecology.** Plaza Hotel, New York. Sponsored by the Center for Bio-Medical Communication. Category I credit: 13.5 hours. For more information, call (201) 385-8080.

## **October 16-19**

**AMCRA's 1994 Annual Managed Care Conference & Exhibition.** Atlanta Marriott Marquis, Atlanta, Georgia. Sponsored by the American Managed Care and Review Association. For more information, call (202) 728-0506.

## **October 19-21**

**Contemporary Cardiothoracic Surgery.** The Ritz-Carlton Hotel, St. Louis. Presented by the Division of Cardiothoracic Surgery and the Office of CME at Washington University School of Medicine. For more information, call (800) 325-9862.

## **October 20-21**

**Tools and Techniques for Improving Clinical Outcomes: A Practical Seminar for Physicians & Clinical Leaders.** Birmingham, Alabama. Presented by the Joint Commission on Accreditation of Healthcare Organizations. For more information, call (708) 916-5800.

## **October 21-22**

**Identification & Treatment of Wife/Partner Abuse: Clinical Interventions for Victims & Offenders.** Menninger Seeley Conference Center, Topeka, Kansas. For more information, call (800) 288-7377.

## **October 24-28**

**Prevention in Practice: Workplace Health in the 21st Century.** Denver Marriott City Center, Denver, Colorado. Sponsored by the American College of Occupational and Environmental Medicine. For more information, call Kay Coyne at (708) 228-6850, ext. 18.

## **October 27-28**

**Symposium on Obstetrics & Gynecology.** Marriott Pavilion Hotel Downtown, St. Louis. Sponsored by the Washington University School of Medicine. For information, call (800) 325-9862 or (314) 362-6893.

## **October 28-29**

**Men, Women & Sex: Psychotherapeutic & Pharmacologic Considerations for Therapists.** Menninger Seeley Conference Center, Topeka, Kansas. For more information, call (800) 288-7377.

## **November 5-6**

**Radical Perineal Prostatectomy: Laparoscopy in Urologic Surgery and Laser Prostatectomy.** Tulane University Medical School, New Orleans. Category I credit: 15 hours. For more information, call (504) 588-5466 or (800) 588-5300.

## **November 10-13**

**21st Anesthesia and the Geriatric Patient.** Marriott Pavilion Hotel Downtown, St. Louis, Missouri. Sponsored by the Washington University School of Medicine. For more information, call (800) 325-9862 or (314) 362-6893.

## **November 11-13**

**Anesthesia and the Geriatric Patient.** The Marriott Pavilion Hotel, St. Louis. Presented by the Washington University School of Medicine. For more information, call (800) 325-9862.



### November 11-13

**Anesthesiology Update: 1994.** Monterey Plaza Hotel, Monterey, California. Sponsored by Office of Continuing Medical Education, UC Davis School of Medicine and Medical Center. For more information, call (916) 734-5390.

### November 17-20

**Consultation-Liaison Psychiatry: The Bridge to Primary Care.** The Pointe @ Squaw Peak, Phoenix, Arizona. Sponsored by the Academy of Psychosomatic Medicines. For more information, call (800) 338-9391.

### November 18

**Women's Healthcare Issues.** Ritz-Carlton Hotel, St. Louis. Sponsored by the Washington University School of Medicine. For more information, call (800) 325-9862 or (314) 362-6893.

### November 18-19

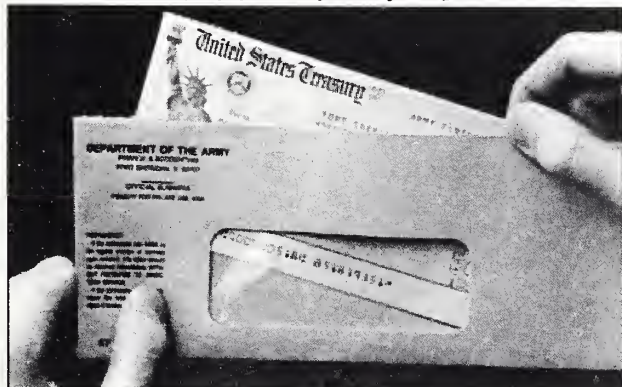
**Primary Care Overview of Pain Management.** Inn at Napa Valley, Napa, California. Sponsored by the Office of Continuing Medical Education, UC Davis School of Medicine and Medical Center. Category I credit: 10 hours. For more information, call (916) 734-5390.



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# Keeping Up

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## **Nutrition & Aging X**

September 28-29, time to be announced, Excelsior Hotel, Little Rock. Sponsored by UAMS College of Medicine and presented by David Lipschitz, M.D., and Ronnie Chernoff, M.D.

## **Update in Primary Care Geriatrics Three Part Series**

Sept. 17, Oct. 15 and Nov. 12, 8:00 a.m., Washington Regional Medical Center, Fayetteville. Dates coincide with Fayetteville Razorback football games (and War Eagle Craft Fair weekend, Oct. 15). For more information, call 442-1823. For Razorback football tickets, call 1-800-982-HOGS (4647). Category I credit: 2.0 hours each session.

## **Second Prevention of Heart Disease: A Focus on Lipid Treatment**

September 22, 12:00 noon, MCSA Union Medical Campus Conference #3, El Dorado. Sponsored by AHEC South Arkansas and presented by Peter Jones, M.D. Category I credit: 1.0 hour.

## **Pediatric Orthopaedic Overview for Primary Care Providers**

September 24, 8:00 a.m., Arkansas Children's Hospital Brandon Conference Center, Little Rock. Sponsored by Arkansas Children's Hospital and presented by Laurie Hughes, M.D.; Rosalind White, R.N.; and Betsy Tursky, R.N. Category I credit: 4.45 hours.

## **College of Nursing Research Day**

October 7, UAMS, Education II Bldg., Room G141, Little Rock. For more information, call UAMS College of Nursing, 686-5163.

## **Chronic Pain Management**

October 13, 12:00 noon, MCSA Union Medical Campus Conf. #3, El Dorado. Presented by Robert E. Powers, M.D. Category I credit offered: 1.0 hour. Lunch provided.

## **Traumatic Brain Injury in the Child and Adolescent**

October 21, Registration 8:00 a.m., Arkansas Children's Hospital Brandon Conference Center, Little Rock. Sponsored by UAMS and presented by Kerstin Sobus, M.D. Category I credit: 5.25 hours.

## **Eleventh Annual Conference on Perinatal Care**

November 3-4, time to be announced, Hilton Inn, Little Rock. Sponsored by UAMS and presented by J. Gerald Quirk, M.D.

## **Treatment of Chronic Obstructive Pulmonary Disease**

November 10, 12:00 noon, MCSA Union Medical Campus Conf. Rm. #3, El Dorado. Sponsored by AHEC-South Arkansas and presented by Gerardo San Pedro, M.D. Category I credit: 1 hour. Lunch provided.

## **Recurring Education Programs**

As organizations accredited for continuing medical education by the Arkansas Medical Society, the organizations named certify that these continuing medical education activities meet the criteria for the credit hours specified in Category I of the Physician's Recognition Award of the American Medical Association.

### **FAYETTEVILLE-VA MEDICAL CENTER**

General Medical Topics, Thursdays, 12:00 noon, Auditorium, Bldg. 3  
Medical Grand Rounds, Thursdays, 12:00 noon, Conference Room, Bldg. 4

### **HOT SPRINGS-AMI NATIONAL PARK MEDICAL CENTER**

Continuing Medical Education Luncheon, Sept. 23, Oct. 14 & 28, 12:30 p.m., AMI Ozark - Quapaw Room

### **LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL**

Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium  
Genetics Conference, Wednesdays, 12:00 noon, Sturgis Bldg., room 457  
Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom  
Pediatric Grand Rounds, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium  
Pediatric Neuroscience Conference, 1st Thursday, 8:00 a.m., 2nd Floor Classroom  
Pediatric Pharmacology Conference, 5th Wednesday, 12:00 noon, 2nd Classroom  
Pediatric Research Conference, 1st Thursday, 12:00 noon, 2nd Floor Classroom



#### **LITTLE ROCK-ST. VINCENT INFIRMARY MEDICAL CENTER**

*Cancer Conferences*, Thursdays, 12:00 noon, location to be announced. Lunch provided.  
*Chest Conference*, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Sandwich buffet served  
*General Surgery Grand Rounds*, 1st Thursday, 7:00 a.m. Smith Room. Light breakfast provided.  
*GYN Surgery Cancer Conference*, 2nd Monday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
*Interdisciplinary AIDS Conference*, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
*Joint Tumor Conference*, 1st Wednesday, 12:00 noon. CARTI Auditorium. Lunch provided.  
*Journal Club*, Tuesdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
*Mental Health Conference*, 3rd Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
*Urology Grand Rounds*, 1st Tuesday, 5:30 p.m., Southwestern Bell/Arkla room. Refreshments provided

#### **LITTLE ROCK-BAPTIST MEDICAL CENTER**

*Anesthesiology Conference*, 3rd Thursday, 7:00 a.m., Conference Room 1  
*Breast Conference*, 3rd Thursday, 7:00 a.m., Conference Room 1  
*GI Conference*, 4th Friday, 11:30 a.m., Conference Room 1  
*Grand Rounds Conference*, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.  
*Pathology Conference*, 1st Tuesday, 3:00 p.m., Pathology Library  
*Pediatric Grand Rounds*, Tuesdays, 12:00 noon, Especially for Women Resource Room, 2nd floor/BMC. Category 1 credit available. Lunch provided.  
*Pulmonary Conference*, Tuesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.  
*Sleep Case Conference*, Fridays, 12:00 noon. Call BMC ext. 1902 for location. Lunch provided.

#### **NORTH LITTLE ROCK-BAPTIST MEMORIAL HOSPITAL**

*Chest & Problems Case Conference*, 3rd Wednesday, 12:00 noon, Assembly room. Lunch provided.  
*Grand Rounds & Chest Conference*, 1st Monday (3rd, chest), 12:00 noon, Assembly room.  
*Medicine Conference*, 1st Wednesday, 12:00 noon, Assembly room. Lunch provided.  
*Surgery Conference*, 2nd Wednesday, 12:00 noon, Assembly room. Lunch provided.  
*X-ray Case Conference*, 4th Wednesday, 12:00 noon, Assembly room. Lunch provided.

*As an organization accredited for continuing medical education by the Accreditation Council for Continuing Medical Education, the University of Arkansas for Medical Sciences certifies the following continuing medical education activities meet the criteria for Category I of the Physician's Recognition Award of the American Medical Association.*

#### **LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES**

*ACRC Oncology Forum*, Thursdays, 4:00 p.m., UAMS ACRC 2nd Floor Board room, 1.5 credits  
*Anesthesia Lecture Series*, Wednesdays, 4:00 p.m., UAMS Education Bldg., room G/110 A&B  
*Anesthesia Morbidity & Mortality Conference*, Tuesdays, 6:45 a.m.; 2nd & 4th Thursdays, 4:00 p.m., UAMS Education Bldg., room G/110 A&B  
*Arkansas Blood & Cancer Society Conference*, 6th Thursday, 7:30 p.m. Terrace Restaurant, Little Rock  
*Cardiology Clinical Conference*, Mondays, 4:00 p.m., UAMS, room 3S06  
*Cardiology Graphics Conference*, Wednesdays, 12:00 noon, UAMS, room 3S06  
*CARTI North Tumor Board Cancer Conference*, 2nd Wednesday, 12:00 noon, CARTI North, Searcy  
*Cardiothoracic Surgery Conference*, date, time, & location varies  
*Cardiothoracic Surgery Monthly Journals Club*, 4th Saturday, 9:30 a.m., UAMS Surgery Dept. Library, room 2S/28D  
*Cardiothoracic Surgery Morbidity & Mortality Conference*, 2nd Saturday, 9:30 a.m., UAMS Surgery Dept. Library, room 2S/28D  
*Child Psychiatry Update/Case Conference*, 3 Fridays per month, 1:00 p.m., ACH Child Study Center conference room  
*CME Outreach Program*, dates, times & locations vary  
*Emergency Medicine Didactic Conference 1*, Thursdays, 12:00 noon. UAMS Education Bldg., room G/110A&B  
*Emergency Medicine Didactic Conference 2*, Thursdays, 1:00 p.m., UAMS Education Bldg., room G/110A&B  
*Emergency Medicine Grand Rounds 1*, Tuesdays, 3:00 p.m., UAMS Education Bldg., room B/106A&B  
*Emergency Medicine Grand Rounds 2*, Tuesdays, 4:00 p.m., UAMS Education Bldg., room B/106A&B  
*Endocrinology Case Conference*, Fridays, 7:30 a.m., ACRC 3rd floor conference room  
*Family Practice Grand Rounds*, Tuesdays, 12:15 p.m., Family Practice Center, 6th and Elm  
*Gastroenterology Grand Rounds*, Thursdays, 4:00 p.m., Gastroenterology conference room, 3D29  
*GI/Radiology Conference*, Tuesdays, 8:00 a.m., UAMS Radiology conference room, M1/293  
*Hematology/Oncology Fellow's Forum*, Fridays, 8:15 a.m., ACRC Betsy Blass conference room  
*Interhospital Urology Grand Rounds*, 1st Tuesday, 5:30 p.m., St. Vincent Arkla/Bell room  
*LR Cancer Conference*, Wednesdays, 12:00 noon, UAMS ACRC conference room three times a month, CARTI Auditorium once a month  
*LR Vascular Conference*, time & date varies monthly, rotates between UAMS, SVI & BMC  
*Medicine Grand Rounds*, Thursdays, 12:00 noon, UAMS Education Bldg., room G/131A&B

*Med/Path Conference*, 3rd or 4th Tuesday, 3:00 p.m., UAMS Shorey Bldg., room S/306  
*Medicine Journal Club*, alternate Thursdays, 7:30 a.m., ACC Medicine Clinic conference room  
*Medicine Research Conference*, Wednesdays (except 3rd), 4:30 p.m. UAMS Education Bldg. room B/135  
*Neurology Clinical Case Conference*, Thursdays, 8:00 a.m., rotates between VAMC-LR, UAMS, & ACH  
*Neuropathology Conference*, Thursdays, 9:15 a.m. VAMC-LR Pathology Dept. 1.25 credit hours  
*Neuroradiology Conference*, Wednesdays, 4:00 p.m., UAMS Neuroradiology conference room, M1/293  
*Neuroscience Conference (Basic)*, Mondays, 8:00 a.m., UAMS 7D33  
*Neuroscience Conference (Basic & Clinical)*, Wednesdays, 4:00 p.m., UAMS 7C  
*Neurosurgery Journal Club*, 2nd & 4th Thursdays, 8:00 p.m., 2 credit hours  
*Neurosurgical Pathology Conference*, Thursdays, 4:00 p.m., VAMC-LR Neuropathology conference room, 2E141  
*OB/GYN Fetal Boards*, 2nd Fridays, 8:00 a.m., ACH Sturgis Bldg.  
*OB/GYN Grand Rounds*, Wednesdays, 7:45 a.m., UAMS Education Bldg., room G/131B  
*Ophthalmology Problem Case Conference*, Thursdays, 4:00 p.m., UAMS Jones Eye Institute, 2 credit hours  
*Ophthalmology Residency Morning Lectures*, Mondays, Wednesdays, Fridays, 7:30 a.m., UAMS Jones Eye Institute  
*Orthopaedic Basic Science Conference*, Tuesdays, 8:00 a.m., UAMS Education Bldg., room B/135  
*Orthopaedic Bibliography Conference*, Tuesdays, 8:30 a.m., UAMS Education Bldg., room B/135, 1.5 credit hours  
*Orthopaedic Fracture Conference*, Tuesdays, 7:30 a.m., UAMS Education Bldg., room B/135  
*Orthopaedic Grand Rounds*, Tuesdays, 10:00 a.m., UAMS Education Bldg., room B/135  
*Pathology Autopsy Conference*, Wednesdays, 12:00 noon, VAMC-LR Morgue  
*Psychiatry Grand Rounds*, Fridays, 11:00 a.m., UAMS Child Study Center Auditorium  
*Surgery Basic Sciences Conference*, 1st Saturday, 7:30 a.m., ACRC 2nd floor conference room  
*Surgery Grand Rounds*, Saturdays, 8:30 a.m., ACRC 2nd floor conference room  
*Surgery Morbidity & Mortality Conference*, Saturdays, 9:30 a.m., ACRC 2nd floor conference room  
*Surgery Resident Case Conference*, Saturdays (except 1st), 7:30 a.m., ACRC 2nd floor conference room  
*Trauma Morbidity & Mortality Conference*, date & time varies monthly, ACRC 2nd floor conference room  
*Urology Adult Subject Oriented Conference*, once monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Basic Sciences Conference*, 2nd Tuesdays, 5:00 p.m., VAMC-LR, 4D resident office  
*Urology Clinical Didactic Conference*, 3rd Tuesday, 5:00 p.m., VAMC-LR, 4D  
*Urology Formal Teaching (Grand) Rounds*, once or twice monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Journal Club*, once a month, 5:00 p.m., VAMC-LR, 4D  
*Urology Morbidity & Mortality Conference*, once monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Pathology Conference*, 4th Thursday, 5:00 p.m., VAMC-LR, 4D  
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*Clinical Faculty Conference*, 5th Tuesday, St. Bernard's Regional Medical Center, Dietary Conference Room, lunch provided  
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*Independence County Medical Society*, 2nd Tuesday, 7:30 p.m., Batesville Country Club, Batesville  
*Interesting Case Conference*, 4th Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Jackson County Medical Society*, 3rd Thursday, 7:00 p.m., Newport Country Club, Newport  
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*Methodist Hospital of Jonesboro CME Conference*, 2nd Tuesday, 7:00 p.m., Cafeteria, Methodist Hospital of Jonesboro  
*Neuroradiology Conference*, 3rd Friday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
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*Perinatal Conference*, 2nd Wednesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
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*Behavioral Science Conference*, 1st & 3rd Thursday, 12:00 noon, Jefferson Regional Medical Center  
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*Geriatrics Conference*, 3rd Friday, 12:00 noon, Jefferson Regional Medical Center  
*Internal Medicine Conference*, 2nd & 4th Wednesday, 12:00 noon, Jefferson Regional Medical Center  
*Obstetrics/Gynecology Conference*, 2nd Tuesday, 12:00 noon, Jefferson Regional Medical Center  
*Orthopedic Case Conference*, 2nd & 4th Thursday, 12:00 noon, Jefferson Regional Medical Center.  
*Pediatric Conference*, 3rd Wednesday, 12:00 noon, Jefferson Regional Medical Center  
*Radiology Conference*, 3rd Tuesday, 12:00 noon, Jefferson Regional Medical Center  
*Southeast Arkansas Medical Lecture Series*, 4th Tuesday, 6:30 p.m., Pine Bluff County Club. Dinner meeting.  
*Surgery Conference*, 1st Friday, 12:00 noon, Jefferson Regional Medical Center  
*Tumor Conference*, 1st Wednesday, 12:00 noon, Jefferson Regional Medical Center

#### **TEXARKANA-AHEC SOUTHWEST**

*Chest Conference*, every other 3rd Wednesday, 12:30 p.m., St. Michael Hospital  
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*Residency Noon Conference*, Tuesdays, Wednesdays and Thursdays, 12:30 p.m., AHEC-Southwest Family Practice Clinic  
*Tumor Board*, Fridays, except 5th Friday, 12:00 noon, Wadley Regional Medical Center & St. Michael Hospital  
*Tumor Conference*, every 5th Friday, 12:00 noon alternates between Wadley Regional Medical Center & St. Michael Hospital

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# Don't Let Them Take It Away.

When you go to the polls Tuesday, November 8, you'll have a chance to keep Arkansas healthy with a vote FOR Referred Act One. Your vote will keep the "Soft Drink" tax in place, helping thousands of Arkansans retain basic health services. Don't be misled by the campaign of deception being waged by the soft drink bottlers. Learn the facts and vote your conscience.

## WHAT IS THE SOFT DRINK TAX?

In 1992, the legislature passed a tax on soft drinks to help pay for Arkansas' bankrupt Medicaid program, which provides critical health care for Arkansas' neediest citizens. Lawmakers rightfully decided to levy this small tax on a nonessential, nonnutritious item rather than raise the income tax or general sales tax. **The tax is only two cents per twelve ounce can of soft drink.**

## WHERE DOES THE TAX MONEY GO?

Every \$1 collected in soft drink tax generates \$3 in federal matching funds. That means that \$35 million from the tax buys \$140 million in services. What a bargain for Arkansas! And the money is credited to the Arkansas Medicaid Program Trust Fund. **Act 27, passed in the recent special legislative session mandates the money can only be used for Medicaid.**

## WHAT SERVICES DOES THE TAX PROVIDE FOR ARKANSANS?

Medicaid provides many essential health services to almost 400,000 Arkansans who could not otherwise afford them. A partial list of the services includes: nursing home care for elderly, in-home medical equipment, home health services, hospice services for the terminally ill, organ transplants, prescription drugs, artificial limbs, intensive care for newborn babies and hospital care, to name a few.

## WHAT IS REFERRED ACT ONE?

Referred Act One is an opportunity for you to vote to keep the soft drink tax in place, which helps pay for our Medicaid program.

## WHO IS AGAINST ACT ONE?

The "cola cartel," funded by and made up of out-of-state interests, provides financing for "Citizens Against Unfair Taxes" (CAUT). They want it defeated because the Arkansas tax has been successful, and they don't want it in any more states.



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## HOW MUCH MONEY IS THE OUT-OF-STATE "COLA CARTEL" SPENDING TO TAKE AWAY THESE ESSENTIAL MEDICAL SERVICES?

The soft drink bottlers have spent almost \$3 million to defeat this initiative as of August 31. **And much of the money came from out-of-state – Atlanta, Memphis, Miami and New York!**

## HAS THE TAX HURT COLA SALES?

NO! In fact, sales are up.

## WHO WILL BE HURT IF ACT ONE IS DEFEATED?

A vote against Act One will require Governor Tucker and the legislature to make drastic cuts in existing programs including those for children, the elderly, the disadvantaged and the disabled. And they will be forced to look at cuts in other programs such as prisons, education, law enforcement and aid to cities and counties in order to keep basic health services in place.

As many as 10,000 jobs could be lost if Act One is defeated.

## HOW CAN YOU HELP?

**Vote FOR Act One when you go to the polls on November 8.** We also need volunteers and financial contributions. Call (501)661-1106 or write:

Committee to Preserve the Medicaid Trust Fund, 1100 North University, Suite 109, Little Rock, AR 72207.

# Appendectomy: An Admirable Procedure

Samuel E. Landrum, M.D.\*

Slightly over fifty years ago our teen-aged neighbor returned home by ambulance fourteen days after her appendectomy for appendicitis with gangrene. The operation was performed by a doctor who came to practice in the rural town in west Tennessee six miles away. He was trained somewhat in surgery after an internship. In those days, before antibiotics, he performed many appendectomies; and I never heard of any deaths amount those patients. Prior to his arrival it was rather common for patients to catch the train to Nashville to be treated at Vanderbilt University Hospital for appendicitis. Also, formerly it was not rare to hear of people such as a great uncle to have died with what my family thought was probably appendicitis because there was no doctor to undertake the care of such patients.

Appendicitis should have been recognized as a clinical entity long before 1986, when Reginald Fitz, of Boston, recognized it and aroused the profession to take an active interest in it. A century ago attention had been drawn to the fact that inflammation occurs in the appendix. Mestivier, in 1759, is credited with being the first to publish such an observation. In 1812 Parkinson attributed a case of fatal peritonitis to a perforated appendix. Twelve years later Louyer-Villermay described two cases of gangrenous appendicitis in which there was no coincident inflammation of the cecum. A carefully thought-out paper was presented in 1827 by Melier, based on five cases, and he emphasized the probable frequency of the condition. Melier is believed to have been the first to recognize a case of appendicitis during life. Unfortunately, his conclusions were rejected by the great authority of the day, Dupuytren. This famous sur-

geon attributed abscesses and peritonitis arising in the right side of the abdomen to inflammation of the cecum, which he called perityphlitis. Kronlein, in 1884, was the first surgeon to recognize a case of peritonitis due to perforation of the appendix and to remove this organ.<sup>1</sup>

Although appendectomy is far from the most common operation today, it continues to be perhaps the most rewarding one, especially for non-perforated appendicitis. Consider that the surgeon probably spends about three hours in total time for preoperative, operative and postoperative care; and the patient survives for many years after having a disease with a high mortality rate if not treated properly. Contrast that with the several occasions when hours are expended removing malignancies, and the patient survives perhaps months or a few years. The operation that is perhaps closest in value is the Ramstedt pyloromyotomy that simply permits starving infants to become adequately nourished with a full life expectancy.

The diagnosis of appendicitis in the early stage is a thrilling challenge and is reached largely on clinical grounds with some laboratory tests helping. Rarely do imaging techniques provide findings that are not revealed on careful examination. Reports indicate that the outcome for patients with appendicitis has not been changed by such investigations, but some emergency medical practitioners say that some surgeons will not come to see these patients without the ultrasound study having been done first. This needlessly delays the operation that is exceedingly important to achieve prompt recovery. Unfortunately, the appendix had ruptured in over 20% of cases reviewed for the experience in a community hospital for 1992. This is about the same rate of perforation found on studies over a span of more than thirty years. Patients younger than two years, those with associated illnesses of the elderly, and pregnancy contribute to the difficulty of

\* Samuel E. Landrum, M.D., F.A.C.S., is affiliated with Holt-Krock Clinic in Fort Smith, and is a member of the editorial board for *The Journal of the Arkansas Medical Society*.



delaying diagnosis; but many ruptured because of uncertainty by the initial examiner, as well as patients delaying presentation. Continued diligence by all who see these patients is needed to reduce the rate of perforation and the terrible sequelae of peritonitis. Recently, laparoscopic examination has become practiced more. It achieves a very high rate of accurate diagnosis for patients when the clinical findings are unclear, as is frequently the case of females of child-bearing age, and usually the needed operative therapy can be performed via this approach. Its higher cost is less each year as more instruments are made available by competing manufacturers, but laparoscopy does not need to be embraced for all patients with appendicitis. The operative approaches recommended during the past hundred years have made a major contribution, and the principles of early diagnosis followed by prompt operation apply. With the various difficulties involved with this group of patients, it seems only rarely is it "JUST AN APPENDIX!"

## References

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## TAKE THE FIRST STEP TO RECOVERY

The Arkansas Medical Society Physicians' Health Committee is interested in the well being of Arkansas physicians. Through effective intervention, treatment referral and monitoring of health conditions, the Physicians' Health Committee's services enable physicians to continue to deliver safe and effective patient care.

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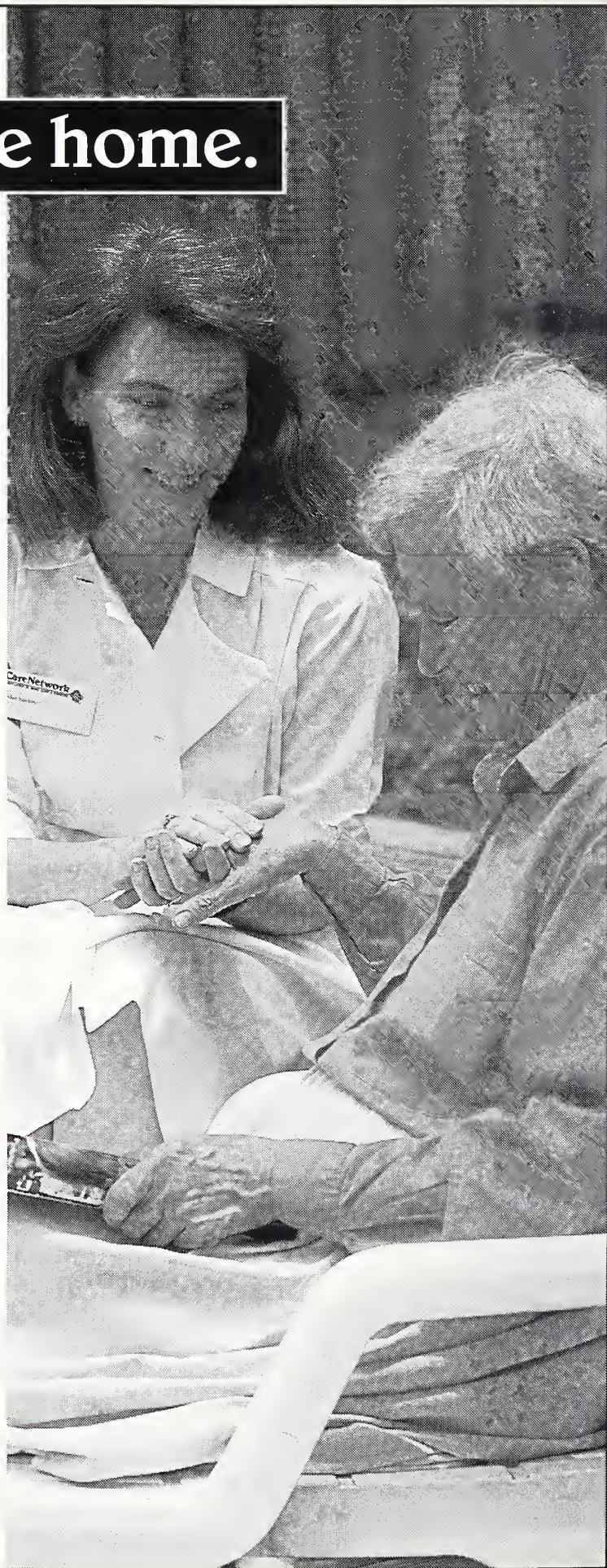
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# Psychiatric Diagnosis: What Does It Mean?

## *A Modern Diagnostic Paradigm*

James Curtis Dilday, M.D.\*

*[This paper includes excerpts from a Public Forum talk given in a local private psychiatric hospital in Little Rock, Arkansas.]*

During my residency training at the University of Tennessee College of Medicine in Memphis, many third year medical students would sometimes get exasperated and ask, "What does a psychiatric diagnosis mean and how can we understand this better?" In surveying students and general patient populations and family members, certain beliefs occur commonly with several severe misconceptions about what a psychiatric diagnosis is, how it is made and what can be done for that. Some common beliefs include, "This is my fault, this is someone else's fault, i.e., my spouse, my parents or my boss, I'm not right with the Lord, or my environment is terrible."

A historical perspective is needed to bring us up to date on what, how and where psychiatric diagnosis is going in the next years. With regard to psychiatry in North America, there are several significant events from a historical perspective including the American Psychiatric Association's attempt to classify mental disorders in a diagnostic and statistical manual episodically. The first of these manuals appeared in 1952, the second appeared in 1968 and the third appeared in 1980. The most recent addition is a revised edition of the Diagnostic and Statistical Manual of Mental Disorders called DSM III-R. A DSM IV is scheduled to come out in late 1994.

However, to obtain a more in-depth historical view of how our American psychiatry has arrived at its current situation, we will have to go back to Europe in the late 1800's and early 1900's to understand more completely.

At the University of Munich in Southern Germany, a neuropathologist named Emil Kraepelin, did

systematic clinical and post mortem studies on severely ill psychiatric inpatients at the Munich State Hospital. In this endeavor, he was able to identify common symptom complexes and establish the concept of clinical syndromes in psychiatry. This includes course of illness and prognosis. His post mortem studies, with the assistance of Dr. Alzheimer, led them to the interesting discoveries that some patients with severe psychiatric illness and symptoms have no morphologic pathological changes in their brain tissues. Of interest to note, however, was that patients with dementing illnesses, such as degenerative dementia, were found to have neurofibrillary tangles in their cortical and subcortical brain structures and these patients episodically exhibited clinical features of psychosis, depression and mania.

At the same time, in Vienna, Austria, a neurologist, Dr. Sigmund Freud, was seeing predominantly outpatient females who had non-psychotic psychiatric disorders, including hysteria and complex neuroses. Dr. Freud developed a psychological construct of psychopathology based on his understanding of unresolved intrapsychic conflicts from childhood. In other words, he tried to understand from an etiological viewpoint, the psychiatric symptoms he saw in his outpatient population.

By 1933, in Germany, the social and political environment had changed. Many psychoanalysts fled from Europe to America and established their own schools of psychoanalysis. Also of interest to note was that several psychiatrists remaining in Germany were able to be recruited by the fascists movement and were involved in rather unsavory and bizarre endeavors which has come to be known in popular terms as Nazi Psychiatry.

After World War II, anything German and anything genetic had a bad connotation and psychoanalysis and psychodynamics became the law of the land, particularly in North America and Europe. However,

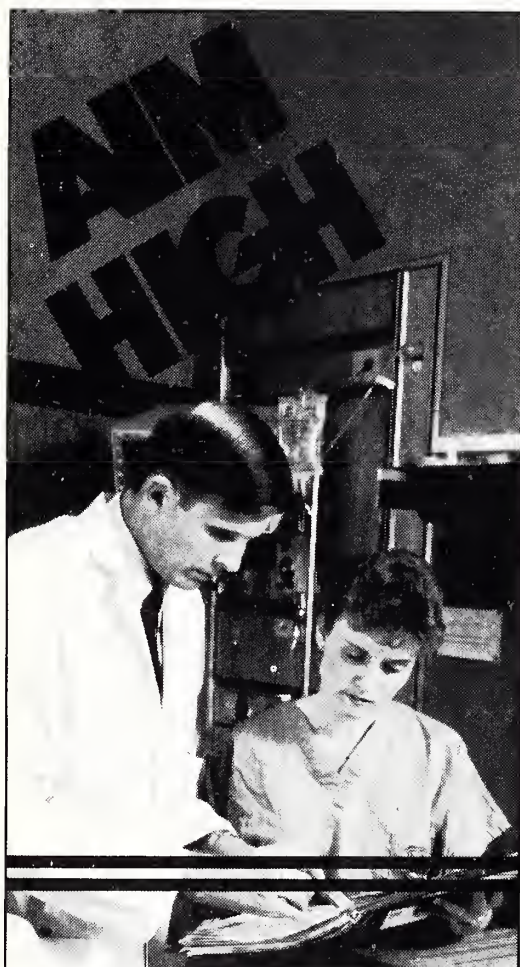
\* James C. Dilday, M.D., is a general psychiatrist in Little Rock.

descriptive psychopathologists throughout North America, including those at the Washington University in St. Louis, Missouri, predominantly felt that descriptive clinical syndromes in psychiatry still needed to be firmly established and that psychiatric psychopathology needed to be scientifically studied and established, based on disturbances in thoughts, feelings and behavior.

In psychiatry, there are no signs such as a fever or a rash, and there are no confirmatory laboratory tests to establish a definitive diagnosis. We cannot diagnose depression or schizophrenia with a CT or MRI scan of the brain. These disorders have common similarities, however, with other medical disorders, in that they result in consultation with the physician and are associated with pain, suffering, disability and even death. The Washington University psychiatrists established what they called diagnostic criteria, i.e., first rank symptoms of major psychiatric disorders which could establish a reliable, predictable and valid format of making diagnoses. In the '50s and '60s also specific treatments including lithium and antidepressants and antipsychotics became available, and it was not just a mere academic exercise to make a proper

diagnosis because now, with specific treatments, we were able to treat specific psychiatric disorders effectively. Even though it was hard for the psychiatric community to grasp the concept that our disorders are similar to medical illnesses in that it is basically a category established by doctors to communicate about a disorder that has certain features, prognosis and complications. Take for example, the fact that historically, diseases have come and gone. A prime example today would be that 20 years ago no one discussed, diagnosed or treated patients with human immunoviral infections. The paradigm of modern psychiatric diagnosis is based on eight features which are elicited by the physician and are similar to those in making valid and predictable medical or surgical diagnoses. The first of these is historical evidence to suggest that this is a disease process such as mania which has been described by physicians ever since the days of antiquity, including up to 2,000 years before Christ. Anorexia nervosa has been described in Europe since the 1500's and schizophrenia has been around several hundred years but is a relative newcomer to the diagnostic classification.

Epidemiology allows the physician to ask ques-



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tions such as, who does this disease affect, such as age, race, sex and when in life it happens. For example, one percent of the general population in North America, Europe and Asia has the probability of developing schizophrenia. Another concept is clinical pictures such as specific diagnoses have distinct and different symptoms. For example, schizophrenia has delusions and auditory hallucinations, depression has depressed mood and appetite disturbance and sleep cycle disturbance, etc.

The natural history of a disorder allows the physician to look at the predictable outcome of a disorder such as, does it go away, get worse or better with time. This is commonly called prognosis in medicine.<sup>2</sup>

Another diagnostic concept is complications. With a specific psychiatric diagnosis, we can predict, with some degree of certainty, certain complications including work performance problems, social performance, etc.<sup>2</sup>

Family studies allow the physician to look at inheritance factors involved with psychiatric diagnoses, such as does the disorder run in families, and we routinely look at at least two preceding generations of family histories to determine if this is an inherited psychiatric disorder as most major psychiatric illnesses are. Differential diagnosis allows the physician to look at what else could this be causing this illness. For example, thyroid dysfunction can induce patients to look as though they have a major depression. Another example is caffeine abuse which looks like panic disorder at times. It is not uncommon for physical disorders to mimic psychiatric disorders.<sup>3</sup> Clinical management allows the physician to treat a specific disorder with a specific class of psychotropic medications and/or psychotherapy and follow for remission.<sup>4</sup>

In summary, major advances in the scientific methodology of psychiatric diagnosis have been made over the last 20 years. We are still at a watershed and threshold level and as our knowledge base expands, particularly that of the neural sciences develops, there may be a future where neuroradiological techniques such as P.E.T. scanning and anatomic techniques such as MRI may be able to confirm a psychiatric diagnosis much like laboratory evaluations help physicians confirm physical disorder diagnoses. The present state of art, however, is still description of distinct clinical syndromes but at least, at this point in time, physicians don't have to understand from a theoretical orientation why the patient has a particular symptom or symptoms or disorder but that he or she does and that is what you treat.

*Be when He heard this, He said, It is not those who are healthy who need a physician, but those who are sick. (Matthew 9:12 N.A.S.B.)*

Editorial assistance: Carol Richmond

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## Stark II: Invest With Caution

David L. Ivers, J.D.\*



Common financial arrangements that physicians have used for years involving hospitals and various ancillary services will no longer be legal beginning January 1, 1995. That is the date Stark II takes effect.

With the approaching deadline, physicians have expressed increasing confusion and concern. For example, may two physicians who have independent practices enter into a partnership to furnish lab services to their individual practices? May a group practice refer patients to radiology facilities owned by the group if the referring physician will not personally perform the services? If so, may the group reimburse the referring physician based on the number of referrals made? May a group practice pay its physicians based on their productivity if part of their work involves ancillary services? May a hospital provide staff physicians with free or low-cost rent?

If you don't know the answers to these questions, you are not alone. As one observer has put it: "Physicians are floundering in a morass of confusing and sometimes contradictory information as to what is and isn't legal for them as investors and contractors." This article will attempt to shed some light on this area.

Stark I and II, 42 U.S.C. § 1395nn (named for Rep. Pete Stark of California) are designed to prohibit physicians from making referrals to businesses in which they have a financial relationship. More specifically, the law states that if a physician (or an immediate family member) has a "financial relationship" with an entity, then the physician may not refer a Medicare or Medicaid patient to the entity for "designated health services." The two key terms here are "financial relationships" and "designated health services."

"Financial relationship" is extremely broad and includes two general categories: (1) An ownership

or investment interest through equity, debt or other means; and (2) compensation arrangements between the physician and the entity, meaning any salary or other remuneration, direct or indirect, in cash or in kind.

The only "designated health service" that Stark currently covers is clinical laboratories. However, Stark II, which becomes effective January 1, 1995, expands Stark to include a variety of "designated health services":

1. Clinical laboratory services;
2. Physical therapy services;
3. Occupational therapy services;
4. Radiology or other diagnostic services;
5. Radiation therapy services;
6. Durable medical equipment;
7. Parenteral and enteral nutrients, equipments and supplies;
8. Prosthetics, orthotics, and prosthetics devices;
9. Home health services;
10. Outpatient prescription drugs; and
11. Inpatient and outpatient hospital services.

Sanctions for violation of Stark can include: re-funds; a civil penalty of \$15,000 for each improper claim; a civil penalty of \$100,000 for engaging in more elaborate circumvention schemes (such as a cross-referral arrangement); exclusion from Medicare and Medicaid; and a penalty of up to \$10,000 for each day for which you fail to meet HCFA reporting requirements.

Unfortunately, in Congress' zeal to reform physician investment practices, it moved too fast for the regulators. At this time, no substantive regulations have been approved for Stark. All we have to go on is the statutory language and regulations that the Health Care Financing Administration (HCFA) had

\* David L. Ivers, J.D., is an associate with Mitchell, Blackstock and Barnes in Little Rock, general counsel for the Arkansas Medical Society.



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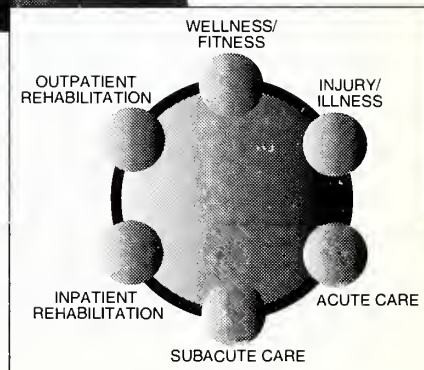


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proposed for Stark I and which will presumably serve as a basis for regulations under the expansion of the law through Stark II.

The guiding principle to keep in mind is that under Stark, if a physician (or an immediate family member) has a financial relationship with an entity, the physician may not make a referral to the entity for Medicare or Medicaid services, and the entity may not make a claim to Medicare or Medicaid or bill anyone else for the service. The intent of the parties is irrelevant -- if you do it and get caught you could be penalized, regardless of whether you knew it was a violation. Thus, if your financial investments are prohibited, you must either refrain from making Medicare or Medicaid referrals, or divest yourself of any interest in the entity in question. This is one of the primary distinctions between Stark and the Medicare and Medicaid Fraud and Abuse (Anti-Kickback) Act, which has been on the books for a number of years. Under the Anti-Kickback law the government must prove that the providers in question offered, paid, solicited or received remuneration with the intent of inducing referrals. With Stark, the government no longer has to overcome that obstacle.

Because Stark is so broad, it is crucial to determine whether you can fit within one of the statutory exceptions. The exceptions are in three categories: (1) exceptions related to both ownership/investment and compensation arrangements; (2) exceptions related only to ownership or investment prohibitions; and (3) exceptions related only to compensation arrangements.

As part of this analysis, keep in mind that you can more easily fit within certain exceptions if you meet the definition of a true group practice. The statute defines "group practice" as:

1. Each physician in the group provides substantially his or her full range of routine services through the joint use of shared office space, facilities, equipment and personnel. (In other words, each physician is a legitimate part of the clinic in practice as well as name.)
2. Substantially all the services of the physicians are provided through the group, or billed under a group billing number, and payments received are treated as receipts of the group.
3. The overhead expenses and income from the practice are distributed in accordance with pre-determined methods.
4. No physician in the group directly or indirectly receives compensation based on the volume or value of referrals.
5. The members of the group practice personally conduct at least 75% of the physician patient encounters of the group practice.

Note that even though No. 4 prohibits directly or indirectly basing compensation on the volume or value of referrals, Stark does not prohibit payment based on productivity. A special provision allows for "profits and productivity bonuses": "A physician in a group practice may be paid a share of overall profits of the group, or a productivity bonus based on services personally performed . . . so long as the share or bonus is not determined in any manner which is directly related to the volume or value of referrals by such physician." This special rule has not been adequately explained, but it appears to mean, for instance, that physicians in a group practice may be compensated based on the number of x-rays that they personally read, but not on the number of mere referrals to the group's x-ray lab.

Listed below are various exceptions to the prohibitions in Stark.

### EXCEPTIONS TO BOTH OWNERSHIP/INVESTMENT AND COMPENSATION ARRANGEMENTS

#### In-Office Ancillary Services

This is one of the most important exceptions. To legally refer Medicare/Medicaid patients to your own in-house ancillary services you must meet all three of the following requirements:

1. The "provider test": The "designated health services" must be furnished either (a) personally by the referring physician; (b) personally by a physician who is a member of the same group practice as the referring physician; or (c) personally by individuals who are directly supervised by another physician in the group practice.
2. The "location test" -- It requires that the "designated health services" must be furnished either: (a) in a building in which the referring physician (or another physician in the same group practice) furnishes routine medical care unrelated to the "designated health services;" or (b) If you are not providing your designated health services in the same office where you conduct the rest of your medical practice, you have to put all the designated health services in a centralized location. The one exception is clinical lab services, which can be provided in multiple locations outside the main office.
3. The "billing test" -- The in-house ancillary services must be billed by: (a) the physician performing or supervising the services; (b) the physician's group practice billing number; or (c) an entity that is wholly owned by the physician or his group practice.





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### Physician services

This one is a little confusing. Referrals of routine physician services are not prohibited. However, some of the "designated health services" are classified by Medicare as "physician services." For example, certain clinical laboratory services are classified as physician services (e.g., clinical pathology consultation; codes dealing with bone marrow smears; and biopsies; blood bank services; certain cytopathology services; and surgical pathology services.) For these type of "designated health services," you may make referrals within the same group practice.

### Prepaid Plans

Essentially this exception allows physician financial relationships with federally qualified HMOs.

## **EXCEPTIONS RELATED ONLY TO OWNERSHIP/INVESTMENT INTERESTS**

### Publicly Traded Securities and Mutual Funds

Stark allows ownership of investment securities involving "designated health services" if they are purchased on terms generally available to the public, publicly listed or traded, and in a corporation that has stockholder equity exceeding \$75 million.

### Rural Provider

If "substantially all" of your "designated health services" are furnished to Medicare and Medicaid residents residing in a rural area your ownership/investment interests are exempt. Rural areas are defined as areas outside "metropolitan statistical areas." The statute does not indicate what is necessary to constitute "substantially all." The proposed regulations indicate that HCFA will probably require that a majority of the referrals be from physicians who have offices in rural areas. Keep in mind that the exceptions under this category do not cover "compensation arrangements." Thus, if you have an investment interest in a lab exempted by the rural provider exception, you may make referrals to the lab, but this does not mean that you may base the salary of a physician in your office on the number of referrals he or she makes to that lab, since the physician's salary is a "compensation arrangement" and is not exempt.

### Hospital Ownership

Stark allows a physician to refer patients in need of "designated health services" to a hospital in which the physician has invested if: (1) the referring physician is authorized to perform services at the hospital, and (2) the physician's interest is in the hospital itself and not merely in a subdivision of the hospital. In other words, if you are going to make referrals to the hospital's MRI department, you have to have an

investment in the hospital itself, and not just the MRI lab.

## **EXCEPTIONS RELATING ONLY TO COMPENSATION ARRANGEMENTS**

### Rental of Office Space

This provision is similar to a safe harbor in the Anti-Kickback Act. It is designed to keep health care providers who are landlords and tenants from working out special deals. For example, Stark prohibits arrangements in which hospital landlords give physician tenants a break on rent and in return the physicians send all their patients to the hospital for "designated health services." Therefore, to avoid trouble with Stark, you must meet the following requirements:

1. The lease is set out in writing;
2. The space rented or leased is not more than what is reasonably necessary for the lessee's legitimate business purposes, and is used exclusively by the lessee;
3. The lease is for a term of at least one year;
4. The rental charges are set in advance and consistency with fair market value; and
5. The lease would be commercially reasonable even if no referrals were made between the parties.

### Rental of Equipment

The same type of requirements apply to this exception as to rental of office space.

### Bona Fide Employment Relationships

Basically, this exception allows an employer to pay physicians a salary as long as it is consistent with fair market value and not based on the volume or value of any referrals. Otherwise, if a physician referred patients for ancillary services to the clinic where he or she was employed, technically this would be a violation of Stark since the salary would constitute "compensation." Again, note that basing salary or bonuses on productivity is not prohibited.

### Personal Services Arrangements

This exception covers independent contractor and other contractual relations that fall short of bona fide employment. Essentially it allows a physician to make referrals to entities from which the physician receives payments for services if the financial arrangement meets certain requirements, e.g., is set out in writing, does not exceed fair market value, is for a term of at least one year, etc.

### Physician Incentive Plan

This exception allows managed care companies to pay physicians through withholds, capitation, bonuses, etc., to promote utilization control without the



compensation being construed as a financial investment under Stark.

### Physician Recruitment

This exception allows hospitals to pay physicians to induce them to relocate to the hospital service area and join its medical staff if the physician is not required to refer patients to the hospital.

### Isolated Transactions

This exception allows isolated financial transactions, such as a one time sale of property or practice between parties that engage in referrals of "designated health services," if certain requirements similar to those under the employment exception are met.

### Certain Group Practice Arrangements With A Hospital

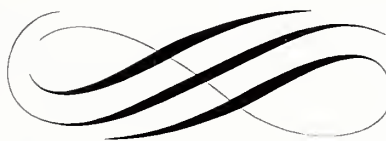
This is an exception for certain arrangements between a hospital and a physician group where "designated health services" are provided by the group but billed by the hospital. The arrangement must have begun before December 1989 and continued in effect without interruption since that date.

There are a few other exceptions, but these are the ones that will most likely come into play. Keep

in mind that this is a general overview of Stark and that you will need to contact your attorney if you are involved in a potentially prohibited arrangement. Also keep in mind that just because you fall within an exception under Stark, that does not necessarily mean you will be in compliance with the Anti-Kickback Act. The two laws have different provisions that sometimes conflict and each must be examined separately. Tread carefully!

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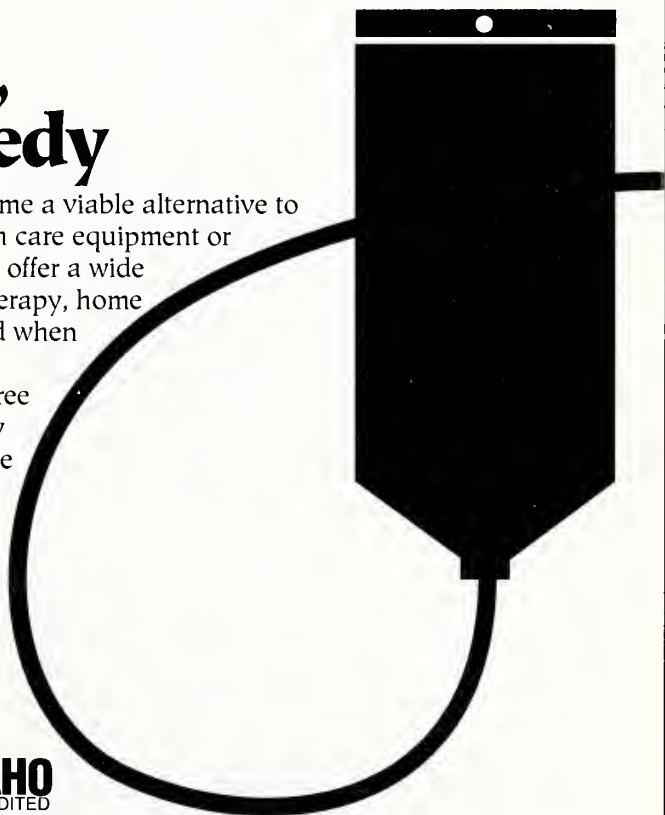


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# Driving and Epilepsy: The State of the Matter

Gregory B. Sharp, M.D.\*

Seizures in persons with epilepsy can certainly pose significant risks for themselves and others if a seizure were to occur while driving a motor vehicle. Most epileptics are well controlled with medication and obviously should be able to drive without undue risks. Epilepsy occurs in 0.5-0.7% of the population at any given time, up to 3-4% of people will have recurrent seizures during some period of their lives, and 10% will have at least a single seizure. Only about 20% of persons with epilepsy cannot have seizures adequately controlled with medication.<sup>1-7</sup> Most members of this intractable group do not attempt to drive. Many have physical or mental disabilities that also lend to the inability to drive. There is actually only a very small percentage of the epileptic population that dangerously and negligently attempt to drive when driving is contraindicated. The charge of the Department of Motor Vehicles, treating physicians and family members is to find and provide the appropriate mechanisms that will keep these individuals from behind the wheel of an automobile.

It is equally important not to discriminate against or restrict individuals with epilepsy who are not in a high risk category for having a seizure while driving. The epileptic person commonly experiences difficulty in maintaining employment and social freedom, and this is exacerbated by the inability to drive. The imposition of driving restriction can further produce economic and social hardship, and thus have a negative impact on quality of life.

## DRIVING AND ACCIDENT STATISTICS

In 1988, there were 158 million licensed drivers in the United States and there were 19.3 million motor vehicle accidents. Only 3,200 of those accidents

were felt to be directly related to medical illness in the driver.<sup>8</sup> Most accidents (71%) are the result of driver errors.<sup>9</sup> The number of accidents produced by a driver as a result of a seizure is felt to be approximately 1 per 10,000 accidents, which result in about 1 per 10,000 traffic accident fatalities.<sup>10</sup> The risk of epileptic drivers having accidents is increased. Three studies suggested an increase in accident rate 1.3 to 2 times the rate among an age-matched control population of non-epileptic drivers.<sup>11-13</sup> Similar increased accident rates have also been observed in groups of drivers with other medical diseases. A recent study revealed an increased accident rate in epileptic drivers of .132, and in drivers with diabetes mellitus of 1.33.<sup>14</sup> Accidents involving an epileptic driver only appear to have been actually caused by a seizure in 11-20%.<sup>12</sup>

Several factors that appear to relatively increase the risk of accidents caused by epileptic drivers include young age (<25 years), male gender and being unmarried. In one study, being under age 25 was associated with 3.3 times greater risk of accidents compared to the rest of the driving epileptic population. Non-epileptics younger than 25 had an increased risk ratio accidents of 1.94. Males were 50% more likely to have accidents than females. Alcohol abuse greatly enhanced the risk of accidents. Subjects with epilepsy who did not have a driver's license tended to have severe disease, intractable seizures, mental retardation, psychiatric illness disease or noncompliance with medications.<sup>15</sup>

## STATE REQUIREMENTS

The laws and requirements regarding the permission to drive for persons with epilepsy are mandated by the individual states. All states require individual disclosure of a history of seizures when applying for a driver's license. Although this requirement may be logical, it has been documented in several studies that

\* Gregory B. Sharp, M.D., is Assistant Professor of Pediatrics & Neurology at the University of Arkansas for Medical Sciences and Co-Medical Director, Arkansas Comprehensive Epilepsy Program (ACEP).



there tends to be gross under-reporting by epileptics when applying for a license, commonly as low as 10-20%.<sup>16,17</sup> Only six states (California, Delaware, Nevada, New Jersey, Oregon and Pennsylvania) require mandatory physician reporting of all patients with epilepsy to the DMV. Such a requirement of mandatory reporting of all patients is controversial. There is no evidence that mandatory reporting reduces the incidence of automobile accidents due to epilepsy.<sup>8</sup> Mandatory reporting can potentially damage the physician-patient relationship and result in failure for the patient to keep an appointment and avoidance reporting seizures to the physician. This then results in a decreased quality in patient management (adjusting medications, etc.), and subsequently poor seizure control and increased associated danger if the patient continues to drive.

Most states require a seizure-free interval following a seizure before the patient is permitted to drive again. Twelve states require no specific interval, six require three months, seven require six months, 24 require 12 months, one requires 18 months and one requires a 24 month seizure-free interval.<sup>8</sup>

The United States Department of Transportation regulations do not allow individuals with a history of epilepsy to be licensed to drive in interstate trucking.

Intrastate trucking regulations are mandated by individual states.<sup>18</sup>

## ARKANSAS LAW CONCERNING DRIVING AND EPILEPSY

Arkansas requires that a person with epilepsy present a physician's certification that he or she has been seizure-free for one year before a driver's license can be issued. The medical information is reviewed by the manager of Driver Control. A physician who provides such information has no explicit grant of immunity from liability for damages arising out of an accident caused by a seizure. The Motor Vehicle Department may impose restrictions applicable to the licensee to assure safe operation (Ark. Stat. Ann. 75-324). The standards for obtaining a license to drive a truck in intrastate commerce are the same as for personal vehicle.

A license may be suspended or revoked without a preliminary hearing if there is sufficient evidence that the licensee is incompetent to drive (75-334(a)(5)). The licensee has a right to an administrative hearing with a Driver Control Hearing Officer within 20 days of the Department's receipt of the licensee's request for hearing (75-33 (g)). Judicial review is available under 75-338, by filing a petition within 30 days of the decision in the court of the county where the licensee resides.

## POTENTIAL LIABILITY OF THE DRIVER WITH EPILEPSY

Some people with epilepsy have incurred civil and criminal liability as a result of seizure-related accidents. This may occur when individuals drive against medical advice, without a valid license, when they have failed to inform the state DMV of their medical conditions, or they knew for a particular reason that they should not be driving at that time.

## PHYSICIAN RESPONSIBILITIES AND LIABILITIES

Physicians in the state of Arkansas are not required to report persons with epilepsy to the DMV. It is the responsibility of the physician to advise patients with epilepsy about the risks involved and inform them of the state law. Arkansas law mandates a seizure-free period of one year prior to driving. Some special circumstances can be used for appeal with the DMV. For instance, if a seizure occurred as a result of a transient illness or metabolic disturbance, or as medications are being decreased or discontinued and restarting medications should reinstate seizure control; or if there is a long-standing history of only nocturnal seizures or simple partial seizures without alteration of consciousness, etc.



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The physician should be responsible to report a patient to the DMV who is obviously having uncontrolled seizures, continuing to drive and placing others at risk.<sup>18</sup>

Documentation of discussions and information given patients is paramount. Arkansas law does not protect the physician from liability. Few reported cases exist on the issue of physician liability to third parties for certifying a patient to drive. The risk of liability is minimal as long as the physician has made recommendations concerning driving in a reasonable manner, consistent with the prevailing standard of care.

## ALCOHOL-RELATED ACCIDENTS IN ARKANSAS

Alcohol and drugs represent a major cause of accidents in Arkansas. There were 67,565 total motor vehicle accidents in Arkansas in 1993 that resulted in 583 fatalities. Alcohol or other drugs were involved in 4,104 (6.1%) of the accidents that resulted in 206 (35.3%) fatalities. We should focus our efforts on preventing the number one cause of accident-related deaths.<sup>19</sup>

## DISCUSSION

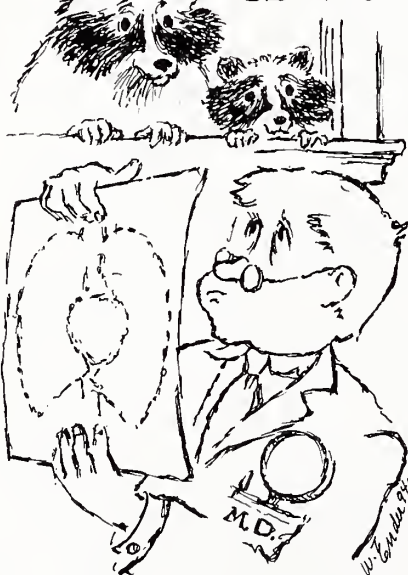
Minimal increased risk is associated with driving by most persons with epilepsy whose seizures are

well controlled. Only a very small number of patients with uncontrolled seizures do actually drive. The physician should inform all patients with epilepsy of associated risks and laws related with driving. Laws requiring mandatory physician reporting and affected individual reporting have been ineffectual in decreasing epilepsy-related traffic accidents. The most effective measure involves recognition by the person with epilepsy when he/she should not be driving and compliance with that. Alcohol abuse is by far the greatest avoidable precipitant of motor vehicle accidents and deserves the most legal attention and public awareness.

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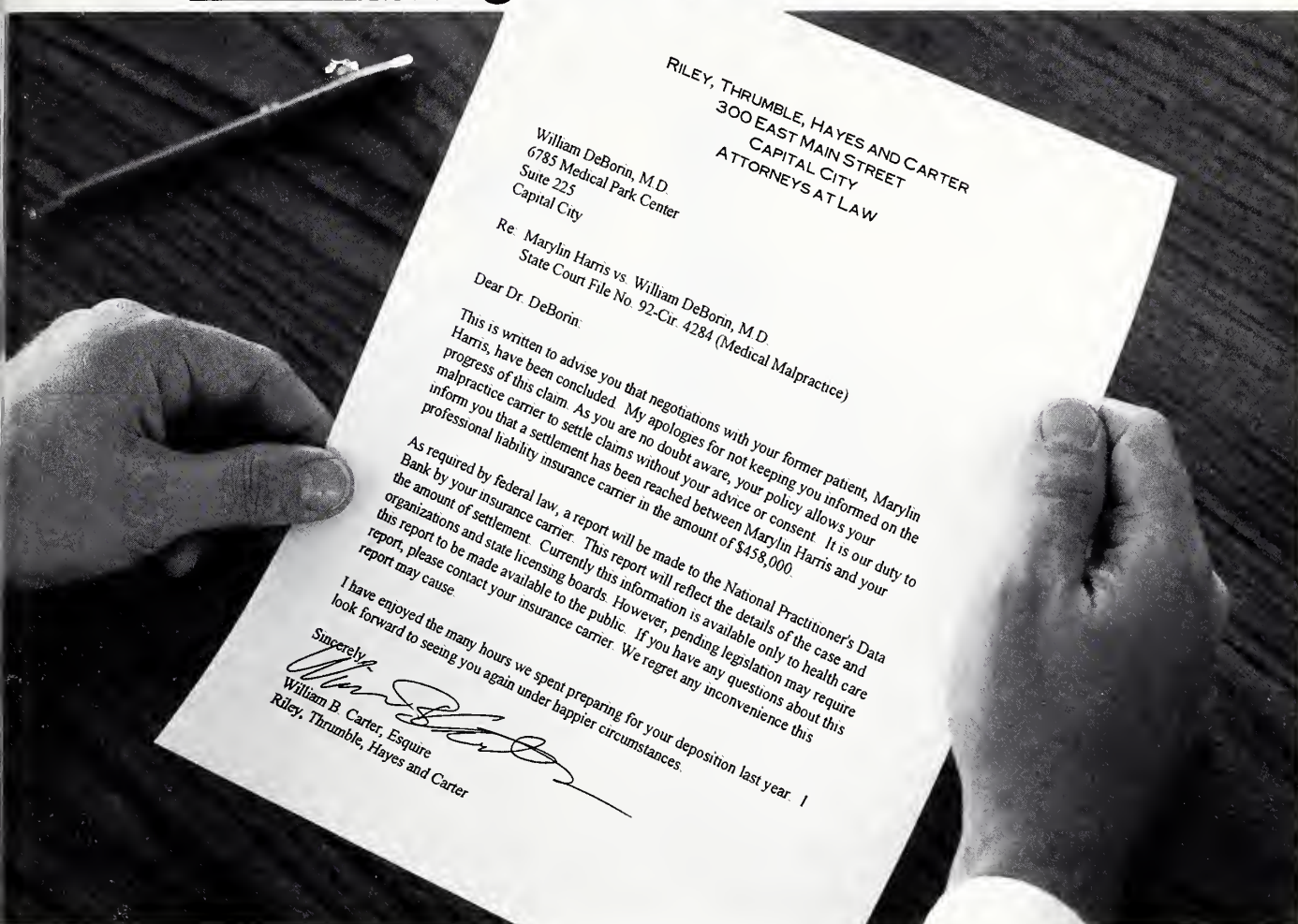
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# Pediatric Flexible Airway Endoscopy - The Light in the Tunnel

Dennis E. Schellhase, M.D.\*

## ABSTRACT

Flexible airway endoscopy (FAE) allows direct visualization and functional assessment of the larynx and central airways and access to lung lavage fluid and biopsy specimens for culture and diagnostic studies. Recently, FAE has been utilized in children for diagnosis and therapy of airway and pulmonary disorders. Pediatric FAE differs significantly from adult FAE in regards to anatomy and physiology of the central airways, indications, sedation and monitoring, common diagnostic findings, and therapeutic options. This review will focus upon clinical utility of pediatric FAE with emphasis upon diagnostic and therapeutic applications and limitations of this relatively new invasive technology.

## INTRODUCTION

The first flexible fiberoptic bronchoscope (FFB) for diagnostic use in adults was introduced by Dr. Shigeto Ikeda and the Machida Endoscope Co., Ltd. in 1966.<sup>1</sup> In the mid-1970's a FFB with potential pediatric applications was developed by the Olympus Optical Co., Ltd.. Its clinical utility in infants and children was initially reported by Dr. Robert Wood in 1978.<sup>2</sup> Since the introduction of this original pediatric instrument, many modifications have been made and new instruments introduced so that there are now several FFB's that can be utilized for evaluation and therapy of pediatric airway and pulmonary disorders (Table 1). The most useful instruments have a directable tip which may be maneuvered both "upwards" (i.e., flexed) and "downwards" (i.e., anti-flexed). The standard pediatric directable FFB has an outer diameter (OD) of 3.6 mm, a 1.2 mm channel, and may be flexed 160°

and anti-flexed 100°. A pediatric ultrathin directable FFB is available with OD of 2.2 mm, no channel, and range of flexion of 160° and anti-flexion 90°. In contrast, the smallest available pediatric rigid bronchoscope (RB) has an inner diameter of 2.5 mm and OD of 3.5 - 4.0 mm. The RB cannot be angulated; however, there are several fiberoptic telescopes which when used in conjunction with the RB allow angulation up to 120°. Thus FAE is uniquely suited to investigate airway abnormalities not only in older children, but also in extremely premature infants.

Currently, pediatric FFB's utilize fiberoptic technology. Briefly, thin glass fibers with individual diameters of 5 - 12 microns have the property of internally reflecting light even when the fiber is bent or twisted.<sup>1</sup> Coating the exterior of the glass fiber with a transparent material (cladding glass) of lower refractive index than the core glass results in improved light transmission and complete optical insulation of each fiber. Adhesive properties of the cladding glass also allow an effective means for bundling a large number of fibers together. If a large number of fibers are bundled together such that each end of the bundle has the same precise regular arrangement, then a high resolution image can be passed from one end of the bundle to the other. The fiberscope is completed by the addition of objective lenses at either end of the fiber bundle, a finger-control mechanism to maneuver the directable tip, and optional suction and instrument channels.

## FLEXIBLE AIRWAY ENDOSCOPY PROCEDURE

In contrast to adolescents and adults, children have significant differences in airway anatomy and pulmonary physiology that have important implications for FAE. In general, the larynx in infants and small children is situated in a relatively cephalad position, the epiglottis is "U" or omega shaped and

\* Dennis E. Schellhase, M.D., is Assistant Professor, Pediatrics and Director, Flexible Airway Endoscopy Services, Pulmonary Medicine Section at Arkansas Children's Hospital, Little Rock.

elongated, the vocal cords are short and concave, the narrowest portion of the airway (up until approximately 8 years of age) is at the level of the cricoid cartilage, the trachea and bronchi have a smaller diameter, and the supporting cartilages of both the upper and lower airways are less developed and thus more compliant and subject to collapse. Additionally, the chest wall is more compliant and the anatomy of the rib cage and diaphragm puts the infant and small child at a mechanical disadvantage when compared to older children and adults. These differences in airway and pulmonary anatomy and physiology place the infant and small child undergoing FAE at increased risk of airway obstruction and hypoxemia.<sup>3</sup>

Because of this increased risk of airway obstruction and hypoxemia and the fact that children are generally not cooperative with procedures, there are several unique pediatric concerns when performing FAE. First, a quiet, relaxed atmosphere is essential to decrease the apprehension of the child. Topical anesthesia of the nose is required for the usual transnasal approach to the airway. Although FAE has been performed successfully in children without sedation, adequate conscious sedation yields a higher quality study and is better tolerated by the child, parents, and staff. The ideal sedative agent would have a rapid onset of action, short duration, relieve anxiety, cause minimal change in responsiveness, not alter airway protective reflexes, have no cardiorespiratory effects, and have no other adverse effects. Unfortunately such a sedative agent does not exist. The usual sedative agents used in children to induce conscious sedation include benzodiazepines, narcotics, short-acting barbiturates, chloral hydrate, and less frequently ketamine. All of these agents may cause significant adverse effects. Thus it is important for the pediatric airway endoscopist to have a thorough understanding of the specific agent, its mode and duration of action, and its potential adverse effects. Second, monitoring of children is essential to avoid life-threatening complications. Monitoring of sedated children has recently been reviewed.<sup>4</sup> Briefly, continuous evaluation of heart rate, respirations, color, airway patency, and oxygenation by pulse oximetry is strongly recommended for both sedated and non-sedated children undergoing FAE. In critically ill children such monitoring is obviously mandatory and it is also strongly recommended that blood pressure be monitored. Because of the increased risk of hypoxemia in children, supplemental oxygen should be provided during the procedures. Third, there must be adequate documentation of airway anatomic and dynamic (functional) findings. This is best accomplished with video-documentation. A

significant advantage of video-documentation is that the study can be reviewed after the procedure, allowing for shorter procedure times and thus improved safety. Additionally, the findings can be reviewed with the referring physician or, in the case of surgically-correctable lesions, with the pediatric airway surgeon. It should be apparent from the above discussion that the pediatric airway endoscopist must be supported by additional personnel who are appropriately trained and can aid in sedation, patient monitoring, and, if necessary, resuscitation.<sup>5</sup>

## CLINICAL UTILITY OF FAE

There are multiple diagnostic applications of FAE in children<sup>6</sup>. FAE should be one of the initial studies in the evaluation of congenital or acquired stridor, abnormal cry or hoarseness, failed endotracheal tube extubation, and suspected tracheal obstruction or compression. FAE is also useful in the evaluation of children with tracheostomy tubes and suspected large airway complications and to follow concurrent laryngeal abnormalities for progression or resolution. FAE with or without bronchoalveolar lavage (BAL) should be considered as an adjunctive study in the evaluation of recurrent wheezing unresponsive to medical therapy, suspected aspiration, unusual lower respiratory infections, recurrent or persistent pulmonary atelectasis or infiltrate, sudden cyanotic episodes, suspected obstructive apnea, suspected inhalational injury, hemoptysis or pulmonary hemorrhage, interstitial lung disease, intractable chronic cough, suspected tracheitis, artificial airway obstruction, intra-operative tracheal dynamics during repair of acquired and congenital tracheal lesions, large airway trauma, and equivocal foreign body aspiration. Children who are highly suspected of foreign body aspiration on the basis of history, physical examination, and radiographic evaluation should still undergo rigid bronchoscopy under general anesthesia. However, there is a role for FAE to evaluate the airway and rule out foreign body aspiration in children who have a suspicious history, but no physical or radiographic evidence to support the diagnosis.<sup>7</sup>

In the author's experience the most common indications for diagnostic flexible airway endoscopy in children are congenital stridor, suspected upper airway obstruction, suspected intubation injury, and recurrent wheezing unresponsive to medical therapy (Table 2). The majority of children with congenital stridor and suspected upper airway obstruction were found to have laryngomalacia; however, subglottic stenosis, vocal cord dysfunction, and supraglottic or glottic masses were also found. Of interest, greater than 35% of children who were found to have an upper airway lesion also had an associated tracheal



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**TABLE 1:** Currently available directable tip flexible fiberoptic bronchoscopes that have pediatric applications

<u>Olympus*</u>	BF-P30	BF-3C20	BF-N20
Outer diameter (mm)	5.0	3.6	2.2
Insertion tube length (cm)	55	55	55
Flexion/anti-flexion of tip	180°/130°	160°/100°	160°/90°
Field of view	120°	90°	75°
Channel (mm)	2.2	1.2	none

\*Olympus Optical Co., LTD.

**TABLE 2:** Common indications for and findings of diagnostic flexible airway endoscopy in children

<u>Indications</u>	<u>Principal Finding*</u>	
Congenital stridor	Laryngomalacia	77%
	Subglottic stenosis	9%
	Other airway lesions	11%
	Normal	3%
	Associated tracheal lesion	36%
Suspected upper airway obstruction	Laryngomalacia	28%
	Vocal cord dysfunction	13%
	Supraglottic/glottic mass	13%
	Subglottic stenosis	10%
	Other airway lesions	26%
	Normal	10%
	Associated tracheal lesion	36%
Suspected intubation injury	Subglottic stenosis	34%
	Laryngeal edema	21%
	Airway granulomas	11%
	Other airway lesions	34%
	Associated tracheal lesion	5%
	Tracheomalacia	40%
Recurrent wheezing unresponsive to medical therapy	Tracheal inflammation	16%
	Vascular compression	16%
	Other airway lesions	4%
	Normal	24%

\*Based upon 300 procedures done by the author in children ranging in age from 0 - 18 years of age.

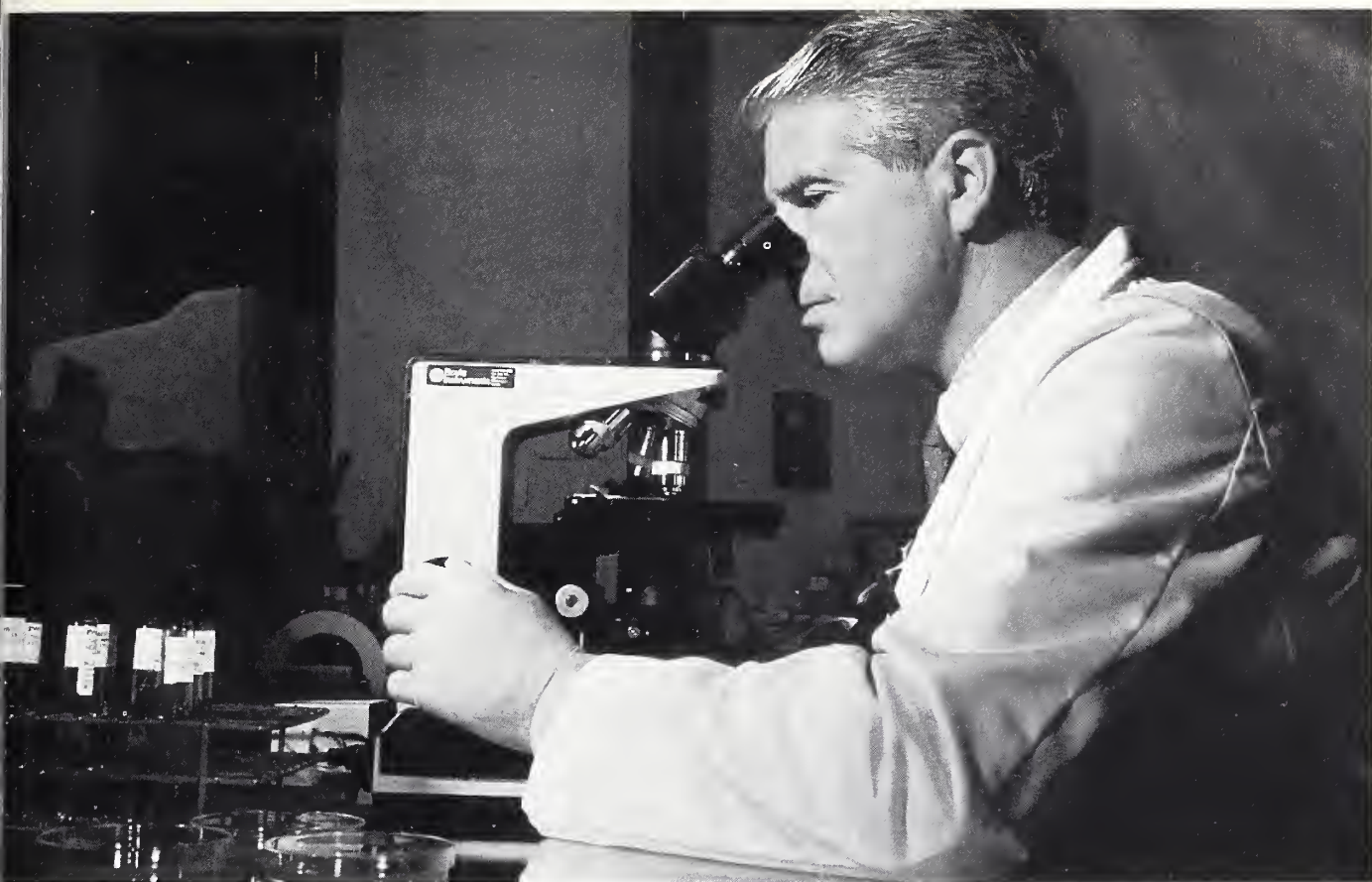
**TABLE 3:** Common indications for bronchoalveolar lavage in children

<u>Indications</u>	<u>General Finding<sup>1</sup></u>	
Lower respiratory infection	Diagnostic	52%
	Nondiagnostic	48%
Recurrent wheezing unresponsive to medical therapy	Diagnostic	43%
	Nondiagnostic	57%
Suspected aspiration	Diagnostic	67%
	Nondiagnostic	33%
Other <sup>2</sup>	Diagnostic	80%
	Nondiagnostic	20%

<sup>1</sup>Based upon 50 procedures done by the author in children ranging from 0 - 18 years of age.

<sup>2</sup>Includes 3 children with suspected pulmonary hemorrhage and one child with suspected interstitial lung disease.





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abnormality (usually tracheomalacia or vascular compression of the trachea). This is consistent with recent reports which suggest that 10 - 60% of children with upper airway lesions have associated tracheal abnormalities.<sup>6,8</sup> Thus flexible laryngoscopy alone is not sufficient for the evaluation of congenital stridor or suspected upper airway obstruction. These children should undergo both flexible laryngoscopy and bronchoscopy (figure 1). The majority of children with suspected intubation injury were found to have laryngeal or subglottic pathology. Depending upon the severity of the lesions found, some of these children required surgical intervention. Finally, in the author's experience, FAE yielded a diagnosis of large airway abnormality in nearly 75% of the children with recurrent wheezing unresponsive to medical therapy. Most commonly, these children were found to have isolated tracheomalacia; however, tracheal inflammation and vascular compression were also found.

## CLINICAL UTILITY OF BRONCHOALVEOLAR LAVAGE (BAL)

FFB's that have a channel can be used to obtain BAL fluid for a variety of diagnostic studies including cytology, histopathologic stains, and cultures. BAL is performed by "wedging" the distal end of the FFB in a third or fourth generation airway and then instilling several small aliquots of nonbacteriostatic saline, each followed by brief periods of suctioning. The resultant BAL fluid is collected in a specimen trap and subsequently transported to the laboratory. The number and size of the aliquots remains controversial, but typically one instills 2 - 3 aliquots of 0.5 - 1 ml/kg. In general the total volume of instilled fluid (all aliquots) should not exceed 10% of functional residual capacity (FRC) or approximately 3 ml/kg with a maximum total in adolescents or adult patients of 300 ml.<sup>9</sup> Returned volume of BAL fluid ranges from 20 - 60% of the total instilled volume.

BAL should be strongly considered in the immunocompetent child with recurrent hemoptysis or hemorrhage, suspected aspiration, interstitial lung disease, suspected pulmonary alveolar proteinosis, unusual pneumonia, pneumonia with respiratory failure, and adult respiratory distress syndrome (ARDS). BAL should be strongly considered in the immunocompromised child with acute lower respiratory infection, unusual pneumonia, HIV with interstitial pneumonitis, and pneumonia with respiratory failure.<sup>9</sup> In the author's experience the most common indications for BAL include lower respiratory infection, recurrent wheezing unresponsive to medical therapy, and suspected aspiration (Table 3). Diagnostic findings were obtained in

almost 60% of procedures, while the remaining procedures revealed non-specific results.

BAL is not without problems. The bronchoscope diameter is a limiting factor in small children and preterm infants. However, BAL has been performed in children less than 4 months of age without major complications. Another problem is specimen contamination with upper airway flora. This problem can be partially alleviated by quantitative cultures. Other techniques such as protected catheters, bronchial brushings, and transbronchial biopsy can currently only be performed with the BF-P30 FFB (Table 1) and thus are limited to older children. Other problems, in addition to the lack of a standardized technique in obtaining BAL fluid, include the small volume of fluid returned and the lack of standardized laboratory processing of BAL fluid. Despite these problems, BAL is a useful and under-utilized diagnostic tool in the evaluation of children with complicated pulmonary disease.

## CLINICAL UTILITY OF TRANSBRONCHIAL BIOPSY (TBB)

TBB can be performed with FFB's that have a channel diameter of at least 2.0 mm. This effectively limits the technique to older children. Additionally, although TBB may be done safely with adequate tissue sampling in adults under conscious sedation, many pediatric airway endoscopists prefer to perform TBB in children under general anesthesia. However, as the pediatric experience with TBB increases, it is expected that most procedures will be done under conscious sedation.<sup>10</sup> Other problems include the additional risk of pneumothoraces and the small size of the biopsy specimen. There also remains significant debate whether TBB adds additional diagnostic information when compared to results from BAL alone. TBB appears to be most useful in diagnosis of suspected rejection of lung transplant, lung lesions of unknown etiology (particularly if carcinoma is suspected), and in suspected pulmonary sarcoidosis.<sup>10-12</sup>

## THERAPEUTIC APPLICATIONS OF FAE

FAE has been shown to be useful in situations of difficult tracheal intubation, selective bronchial intubation, positioning of the endotracheal tube tip above the carina, removal of large mucous plugs, and closure of large bronchopleural fistulas (with superglue) without thoracotomy.<sup>13-15</sup> Although there are reports suggesting that FAE may be utilized in children for foreign body removal<sup>16</sup>, most pediatric airway endoscopists believe foreign body removal is an absolute contraindication to FAE. However, as stated earlier, there is a role for FAE prior to rigid



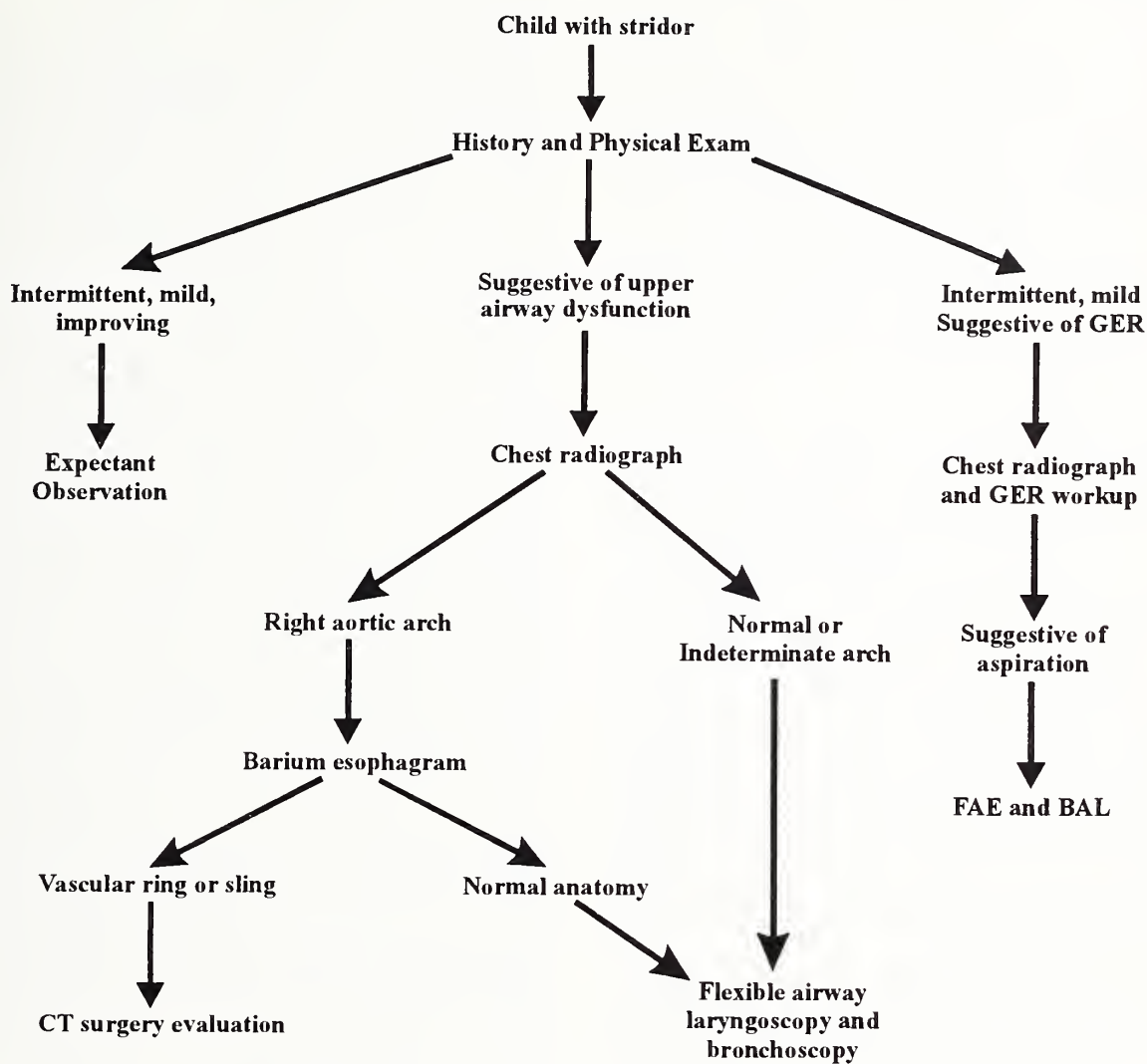


Figure 1: Workup of congenital stridor or suspected upper airway obstruction. If the child has intermittent, mild symptoms and a normal physical examination, then expectant observation may be appropriate. If the child has symptoms suggestive of gastroesophageal reflux (GER), then chest radiograph and GER workup are appropriate. If aspiration is suspected, then BAL should be considered. If the child has evidence of upper airway dysfunction, then chest radiograph should be obtained. If the chest radiograph reveals a right aortic arch, then barium esophagram should be done to rule out vascular lesion. If the chest radiograph and/or barium esophagram are normal, then FAE including both laryngoscopy and bronchoscopy should be performed.

bronchoscopy in those children where the evidence for foreign body aspiration is equivocal.<sup>7</sup>

## COMPLICATIONS OF FAE

Complications of diagnostic FAE in children can be divided into minor and major. Minor complications include transient hypoxia, transient bradycardia, minor epistaxis, emesis, and transient laryngospasm. In ventilated preterm infants transient changes in systolic blood pressure of 10 - 15 mmHg have been described.<sup>17</sup> Minor complications of BAL are similar to those of diagnostic FAE with the addition of post-procedure cough (which may occur for up to 2 hours after the procedure) and post-procedure fever (which may occur 4 - 12 hours post-procedure). Minor complications of TBB are similar to those of BAL with the addition of minor airway hemorrhage.

Major complications of diagnostic FAE include prolonged severe hypoxia, respiratory failure, severe airway edema, airway hemorrhage, lung abscess, and pneumothorax. Major complications of BAL and TBB are similar to those of FAE with the addition of severe bronchospasm and hypotension. In the author's experience minor complications occur in less than 20% of diagnostic FAE's and 40% of BAL's. The principal minor complication has been transient hypoxia. Major complications of diagnostic FAE and BAL occurred in 1% and 2% of procedures, respectively. The major complications have included 2 patients with post-procedure laryngeal edema requiring several hours of nebulized racemic epinephrine and one patient with post-procedure severe bronchospasm requiring transfer from the pediatric inpatient ward to the critical care unit.

Of concern, there has been one reported pediatric death in the medical literature incidentally associated with FAE and BAL. The reported child had chronic severe upper airway obstruction secondary to laryngomalacia with resultant cor pulmonale. The child had hypoxia during the procedure and pulmonary hemorrhage post-procedure followed by right heart decompensation and death.<sup>18</sup>

Based upon reported complications of pediatric FAE, relative contraindications include severe airway obstruction (although, fiberoptic assisted intubation may be lifesaving in these patients), profound hypoxia despite 100% oxygen supplementation, severe pulmonary hypertension, and coagulopathy. However, a recent report suggests that FAE and BAL can be safely performed in children anti-coagulated for ECMO.<sup>19</sup> Based upon the one reported pediatric death, absolute contraindications to FAE include severe coagulopathy and cor pulmonale. As stated above, FAE is not indicated in children who require

foreign body removal. These children should undergo rigid bronchoscopy.

## FLEXIBLE VS. RIGID AIRWAY ENDOSCOPY (RAE)

As FAE has become more available and gained wider acceptance, does there remain a role for RAE in the diagnostic evaluation of pediatric airway lesions? Advantages of RAE include superior optics, ability to more thoroughly evaluate the posterior glottis and trachea, ability to perform foreign body removal and operative procedures, more adequate control of ventilation, and increased ability to control airway hemorrhage. Disadvantages of RAE include necessity for general anesthesia, under-appreciation of dynamic airway lesions, increased risk of airway edema, increased risk of pneumothorax and airway perforation, inability to reach beyond the third generation of airways, difficulty in performing BAL, and increased procedure expense. Advantages of FAE include ability to perform the procedure with only conscious sedation, ability to perform the procedure at the bedside, improved ability to evaluate dynamic airway lesions, ability to reach fourth and fifth generation airways, and less procedure expense. Disadvantages of FAE include uncooperative patients despite sedation (lack of ideal sedative agent as discussed above), partial airway obstruction with increased risk of hypoventilation, limited if any ability to perform operative procedures, and over-appreciation of laryngeal aspiration (due to topical anesthesia), subglottic narrowing (due to anterior orientation of the FFB when it is situated superior to the larynx), and dynamic tracheal lesions (due to partial airway obstruction with resultant increased intra-thoracic pressure). Additionally, the FFB is an expensive instrument which is somewhat fragile and easily damaged.

In view of the relative advantages and disadvantages of each technique the choice of instrument should be dictated by the indications for the procedure and the needs of the patient. Both techniques remain essential for the optimal evaluation and therapy of pediatric airway and pulmonary disorders. Furthermore, it is essential that pediatric flexible and rigid airway endoscopists communicate effectively with each other and desire the same goal of optimum patient care. This communication is a two-way street. Some patients should be referred directly to the rigid endoscopist, while others should be referred directly to the flexible endoscopist. In general, a procedure should not be performed unless the information gained is worth the risk, however small, to the child.<sup>20-22</sup>



## SUMMARY

F AE and BAL are safe and effective diagnostic and therapeutic procedures that are currently underutilized in the evaluation and therapy of airway and pulmonary disorders in children. FFB's are available that can be utilized in both older children and premature infants. Additionally, FAE and BAL can be performed in critically ill mechanically ventilated children. TBB has been performed in children, but the clinical applications of this technique remain limited and require further investigation. Special precautions must be taken when performing these procedures in children with adequate monitoring and appropriately sized resuscitation equipment immediately available. Video-documentation is exceptionally helpful to review and share diagnostic findings, particularly with the pediatric airway surgeon. FAE has unique advantages when compared to RAE. Additionally, FAE has specific limitations. Patients must be carefully selected with benefits from the procedure weighed against the risks. Finally, FAE has a number of research applications including longitudinal evaluation of laryngeal and tracheal injury due to mechanical ventilation, collection of BAL fluid to evaluate disease mechanisms in acute and chronic pediatric lung disorders, assessment of aerosol drug delivery, and novel applications for the evaluation and therapy of difficult airway and pulmonary disorders.

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# Breast and Cervical Cancer Screening in the 90's

Linda Deloney  
Arkansas Cancer Research Center  
University of Arkansas for Medical Sciences

Cancer is now the second leading cause of death in women in the United States. In the decade of the 90's, an estimated two million American women will be diagnosed with breast or cervical cancer, and half a million will lose their lives. These deaths will occur in spite of the fact that essentially all deaths from cervical cancer and 30 percent of deaths from breast cancer are preventable through the Pap test, breast self-examination, and mammography.

About 130 new cases of cervical cancer will be diagnosed in Arkansas this year and about 55 women will die from the disease. If cervical cancer is detected in situ, with appropriate treatment, the likelihood of survival is almost 100 percent. Treatment of precancerous cervical lesions identified by Pap screening can actually prevent cervical cancer. Current cer-

vical cancer screening guidelines for asymptomatic women recommend an annual Pap test, beginning at age 18 or earlier if sexually active.

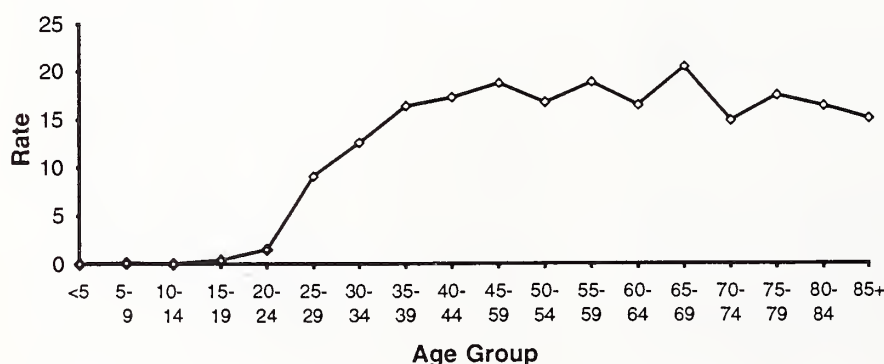
During the 10 years of the Vietnam War, 58,000 men and women died, while 330,000 women died of breast cancer during that same 10-year period. An estimated 1,900 new cases of female breast cancer will be diagnosed in Arkansas this year, and about 475 women will die. Although more than 80 percent of breast cancer occurs in women over age 50, breast cancer is the most common cause of death in women aged 40 to 44.

Breast cancer rates for women increased about two percent annually since 1980, but recently leveled off. Most of this rise is attributed to marked increases in mammography screening, allowing the detection of

early stage breast cancers, frequently before they would become clinically apparent. Although incidence rates are increasing, early detection and improved treatment have kept mortality rates fairly stable over the past 50 years.

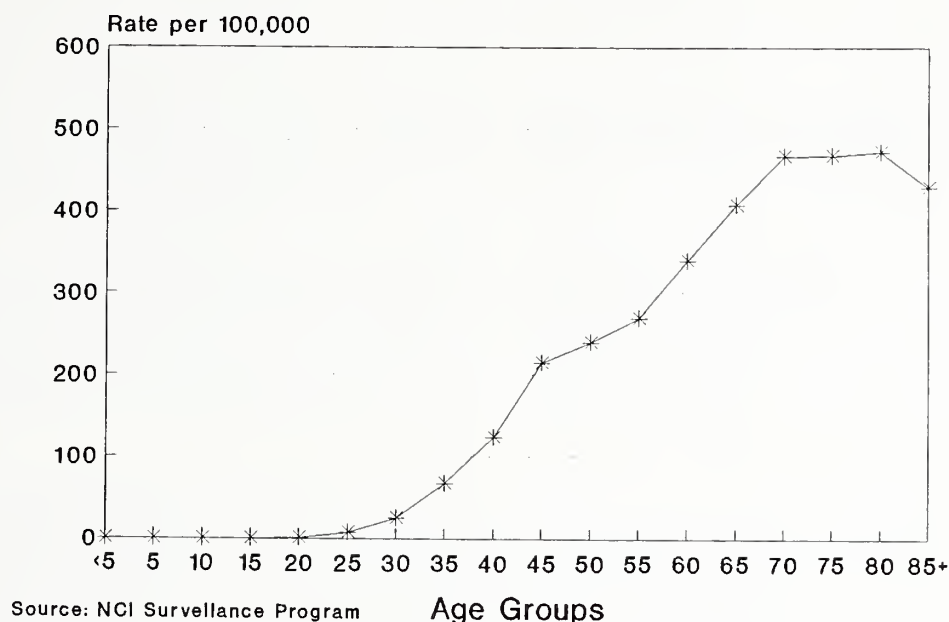
Women can not avoid the predominant breast cancer risk factors - having breast tissue and growing older. Additional factors, which may increase the risk of breast cancer 10 percent to 15 percent, include a family or personal history of breast

## 1990 Cervical Cancer Age Specific Incidence Rates per 100,000 for Females All Races for all NCI SEER areas in U.S.





## Breast Cancer Incidence by Age SEER Data: 1991



cancer, early onset of menstruation, never having a child, having a first child after age 30, late menopause, previous biopsy with abnormal cells, and higher education and socioeconomic status. Dietary fat's link to breast cancer is suggested, but research to find or disprove a connection continues. Many women have one or more risk factors for breast cancer; however, most risks are at such a low level that they only partly explain the high frequency of this disease.

Early detection of breast cancer is the key to saving lives, and breast cancer screening by mammography is the single most effective method for finding the cancer early. Mammography can detect cancer an average of two years before the woman can feel the lump herself, and it can locate cancers too small to be felt during a clinical breast examination. Cancers detected at a smaller size are less likely to have spread to regional lymph nodes or distant body sites. Current breast cancer screening guidelines for asymptomatic women age 50 and over include a mammogram every one to two years, annual clinical breast exam, and monthly breast self-examination.

A mammogram is a fast, easy, and safe way to detect breast cancer early. Each year, a woman is exposed to more "background" radiation in her daily life that she receives from her annual mammogram. A high-quality mammogram is as safe as traveling across the country by plane or from Little Rock to Eureka Springs and back by car.

While mammography is the most effective technology presently available, it is not perfect. It cannot produce clear x-ray images of dense breast tissue, and its effectiveness is limited in women with breast implants. Mammography also cannot distinguish benign from cancerous lesions with absolute certainty. The quality and accuracy of mammograms can vary greatly, depending on the mammography machine and the person reading the x-rays.

In the absence of prevention strategies for breast cancer, mammographic screening has taken on considerable importance as a public health measure. Rapid improvements have been made in both the quality of mammography and access to screening, yet much debate has raged recently about mammograms - especially about who should have them and how often.

Late last year, the National Cancer Institute stated that although there is general agreement by experts that routine mammography screening every one to two years can reduce breast cancer deaths by about one-third in women over age 50, experts do not agree on the usefulness of screening women ages 40 to 49. According to the National Cancer Institute, nearly 30 years of clinical trials have not shown that mammography screening reduces death rates in women under 50.

Some organizations, including the American College of Physicians, recommend that women begin screening mammograms at age 50 and then continue

to have them every year. Others, including the American Cancer Society, recommend screening mammograms every one to two years beginning at age 40, and every year after age 50. There is no dispute that women over 50 should be encouraged to get routine mammograms. These screening recommendations apply to women who have no symptoms of breast cancer, and who are not at higher risk for the disease. For women who may be at higher risk, physicians may recommend earlier and more frequent mammograms.

Within the next five to 10 years several new imaging techniques - digital mammography, magnetic resonance, which uses magnetic fields and radio waves, ultrasound, transillumination, and PET - will be in use, giving physicians a better look at both benign and malignant growths in the breast. Each new technology represents major progress toward making breast cancer screening more accurate, painless, and routine. But none of these are likely to replace mammography for general screening.

A major barrier to cancer screening, particularly mammography, is the cost, which can be as high as \$200. However, many private insurance plans will now pay all or part of the cost of a mammogram. Medicare pays for screening mammography every 23 months and Pap tests once every three years. Medicaid covers screening Pap tests and mammograms. Many mammography facilities and hospitals offer reduced cost mammograms during Breast Cancer Awareness month each October. A limited amount of financial assistance is available through the Arkansas Breast and Cervical Cancer Control Program at Arkansas Department of Health and through the Witness Project at the Arkansas Cancer Research Center.

Even when the cost barrier is removed, a number of other significant barriers to undergoing screening mammography exist - primarily the lack of a strong physician recommendation or referral. Three-quarters of women who get mammograms do so because their doctor recommends it, while 45 percent of women who have never had a mammogram say their doctor did not recommend one.

Only 11 percent of physicians follow screening guidelines completely. The reason physicians cite most frequently for not complying with the guidelines is their perception that mammography is too expensive. Physicians also voice concerns about the relatively low predictive value of mammography. The concerns of a physician who is reluctant to refer asymptomatic women for mammography frequently mirror those of women who are reluctant to undergo screening - inconvenience, fear of excessive radiation exposure, and the belief that exams are necessary only when symptoms are present.

Although recent surveys report increased screening mammography, increases vary dramatically among different population segments. Older women are at high risk of developing breast cancer, but are less likely to receive mammography screening or to perform breast self-examination. Older women below the poverty level, as well as women of moderate to low income, are not participating in mammography screening at levels comparable to women of higher income. Those who live in rural areas where health care access may be limited are even less likely to participate. Many women, regardless of age, are unaware of the value of screening.

A disproportionate number of cancer deaths occur among minorities and low income women. Breast and cervical cancer are major health care problems for poor and minority women, particularly those residing in rural areas such as the Arkansas Delta. Known risk factors which predispose individuals to the development of cervical and breast cancer are highly prevalent in the Arkansas Delta population - diets high in animal fats, smoking, and early sexual intercourse. Limited access to health care, scarce transportation, low literacy rates, economic disadvantages, a poor understanding of human biology and health care, mistrust and distrust of big organizations in urban centers, and a fear of finding cancer often prevent these women from seeking screening for cervical and breast cancer.

Physicians can play an important role in promoting mammography by emphasizing its importance within a comprehensive breast screening program that also includes annual clinical breast examination and monthly breast self-examination. Some simple recommendations for cancer control by practicing physicians are to use office reminder systems, follow screening guidelines, enhance cancer-related skills and knowledge, follow-up appropriately, and offer treatment services for low income women. Research has shown that the implementation of an office reminder system consistently improves the performance of preventive activities in primary care practices.

Radiologists can promote screening mammography by mailing annual rescreening reminders to women. They also need to provide a supportive and attractive environment in which the fear and discomfort often associated with mammography are minimized.





Breast cancer, especially the need for early detection, has the attention of state legislatures and Congress. In an effort to promote mammography screening, in 1991 Congress passed the Breast and Cervical Cancer Mortality Prevention Act, establishing model breast and cervical cancer control programs at the state level and expanding Medicare coverage to include biennial coverage of screening mammograms. By 1992, 42 states, including Arkansas, had adopted legislation to require some form of private insurance coverage for mammograms. Congress appropriated \$197 million for breast cancer research for fiscal year 1993, an increase of \$64 million over the previous year's funding.

The Arkansas Breast and Cervical Cancer Control Program is one of the model programs established as a result of the 1991 legislation. In order to initiate the program, the Arkansas Department of Health entered into a three-year cooperative agreement with the Centers for Disease Control and Prevention to develop the core components necessary for early detection and control of breast and cervical cancer in Arkansas.

Educational materials and brochures, reminder chart cards, and "check-up" computer software are currently available from the program staff. A Prevention Office System, developed by Allen Dietrich, MD and his colleagues at the Dartmouth Medical School, is also available through the program. For more information, contact Dianne Crippen, RN, Professional Resource Coordinator, 661-2636.

The Arkansas Cancer Research Center currently sponsors two community breast and cervical cancer education programs - Hats Off for Health and The Witness Project.

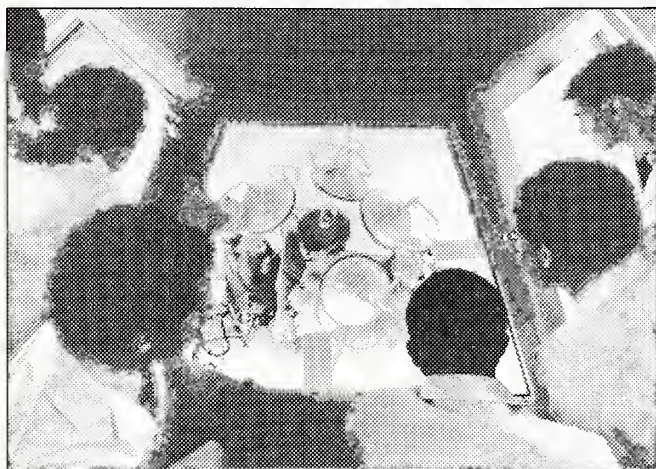
Hats Off for Health is a breast and cervical cancer intervention program to increase awareness and promote the use of cancer screening practices by older women (over the age of 50). To motivate older women to fight breast and cervical cancer, Willie Oates, community volunteer well-known for wearing large, flamboyant hats, and a health educator present an entertaining skit which dispels the excuses women often use to avoid cancer screening practices. The women are taught breast self-examination and are encouraged to practice BSE, obtain mammograms and Pap tests. The program lasts one-hour and is presented in a variety of community settings. Research on Hats Off for Health as an education intervention, based on self-reported data, demonstrated that it increases both BSE practice and mammogram acquisition.

The Witness Project is a health education program designed to meet the specific cultural, educational, knowledge, and learning style levels of rural, underserved African-American women. Witness Project programs are presented to groups of women in churches and community centers across Arkansas. Rural and lower income African-American women, who have had early stage breast or cervical cancer, tell about their experiences to encourage and educate other women about the importance of early detection. The program is designed to empower women to prioritize their own health care needs and to counter the fear and fatalism so often found among minority and lower income populations. During a program session, the role models "witness" by talking about their experiences with cancer, stressing the importance of cancer screening, and answering any questions about their personal experiences, fears and concerns. Witnessing is done by a minimum of two and a maximum of five survivors to small audiences of up to 25 participants. At least two witnesses participate in each session to avoid the appearance of a "token" survivor. The content addresses the fears and beliefs many women hold about cancer, demonstrates that the diagnosis of cancer is neither a death sentence nor a punishment, and provides participants with accurate, personal information about cancer, early detection and treatment methods. Breast self-examination, using ethnic breast models, is taught at each session.

Through the Witness Project, the Susan G. Komen Foundation provides free mammograms for women who may not be able to afford them. When an abnormal mammogram result is obtained, the woman is notified of the need to see a physician. If she wants to see a local physician but can not afford one, she is referred to the Arkansas Health Care Access Foundation, Inc. which provides a toll-free telephone number and referral to a volunteer primary care physician in her area. If she does not have a local physician and she wants to see a surgical oncologist, she is referred to the Arkansas Cancer Research Center at the University of Arkansas for Medical Sciences, which provides care regardless of race, religion or ability to pay. If she is hesitant to return for follow-up or frightened by the "abnormal results", the role models act as a support group and encourage her to seek care.

For more information on these outreach programs, contact the Cancer Education Department at the Arkansas Cancer Research Center by calling 501-686-8801.

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## *Cardiology Commentary and Update*

J. David Talley, M.D.

*Cardiology Commentary and Update* is a new feature in this issue of *The Journal*. Subjects will alternate on a monthly basis between clinical research to specific topics in clinical cardiology. This month will focus on *Integrelin*, a new antiplatelet agent. Next month, a patient with an atrial myxoma will be discussed. Readers are encouraged to comment, criticize and contribute. All correspondence will be forwarded to **CCU** at editorial offices of *The Journal*.

### INTRODUCTION

Antiplatelet therapy is a mainstay in the treatment of coronary artery disease. Beneficial effects are seen in syndromes ranging from stable angina to acute ischemia, injury and infarction. Aspirin is of benefit in both the primary and secondary prevention of acute myocardial infarction (MI).<sup>1,2</sup> The Veterans Administration Cooperative Trial of aspirin in unstable angina found greater than a 50% reduction in recurrent MI and cardiac death.<sup>3</sup> In the second International Study of Infarct Survival (ISIS-2) study, low dose oral aspirin alone, begun within the first 24 hours of chest pain, was associated with improved survival in patients admitted with suspected acute MI. In fact, the benefit of aspirin was equal to that achieved with streptokinase alone.<sup>4</sup>

The pathophysiology benefit appears to inhibition of platelet induced thrombus formation. Thrombus formation is the final common denominator in all acute ischemic coronary artery syndromes. Aspirin, and similar agents, poison platelets by irreversibly inhibiting cyclo-oxygenase, and thereby preventing platelet adhesion to the endothelial surface.

Integrelin: a new antiplatelet

### PATHOPHYSIOLOGY

Integrelin (COR Therapeutics, South San Francisco, Calif.) represents a new class of antiplatelet agents. This group inhibits endothelial to platelet and platelet to platelet interaction by blocking the glycoprotein IIb/IIIa receptor (Figure 1). The glycoprotein

IIb/IIIa receptor is a member of the family of cell surface adhesive protein receptors known as integrins. This receptor is found only on platelets and its sole function is to mediate platelet aggregation. Integrelin inhibits the glycoprotein IIb/IIIa receptor by blocking binding of fibrinogen, fibronectin, vitronectin and von Willebrand factor.

Integrelin contains seven amino acids and is a cyclic peptide. It is manmade by protein synthesis. It has a biological half life of 90 minutes. Platelet aggregation returns to normal in 15 to 30 minutes after the infusion is complete. Due to the short half life the drug is given by an intravenous bolus and maintenance infusion. In standard doses, platelet aggregation is inhibited by 70%. Pharmacological effects are confined to the platelet, no side effects have been observed on other blood elements or organ systems. The drug is excreted by renal mechanisms. Anti-integrelin antibodies have not been observed.

### CLINICAL TRIALS

#### Phase I Trials

A total of six phase I (dose finding) clinical trials have been performed. These trials have shown that Integrelin prolongs the bleeding time without serious side effects at a variety of infusion rates, durations and combinations.

#### Phase II Trials

Unstable Angina. IMPACT (Integrelin to Manage Platelet Aggregation to Prevent Coronary Thrombosis) Unstable Angina. Two hundred and twenty seven

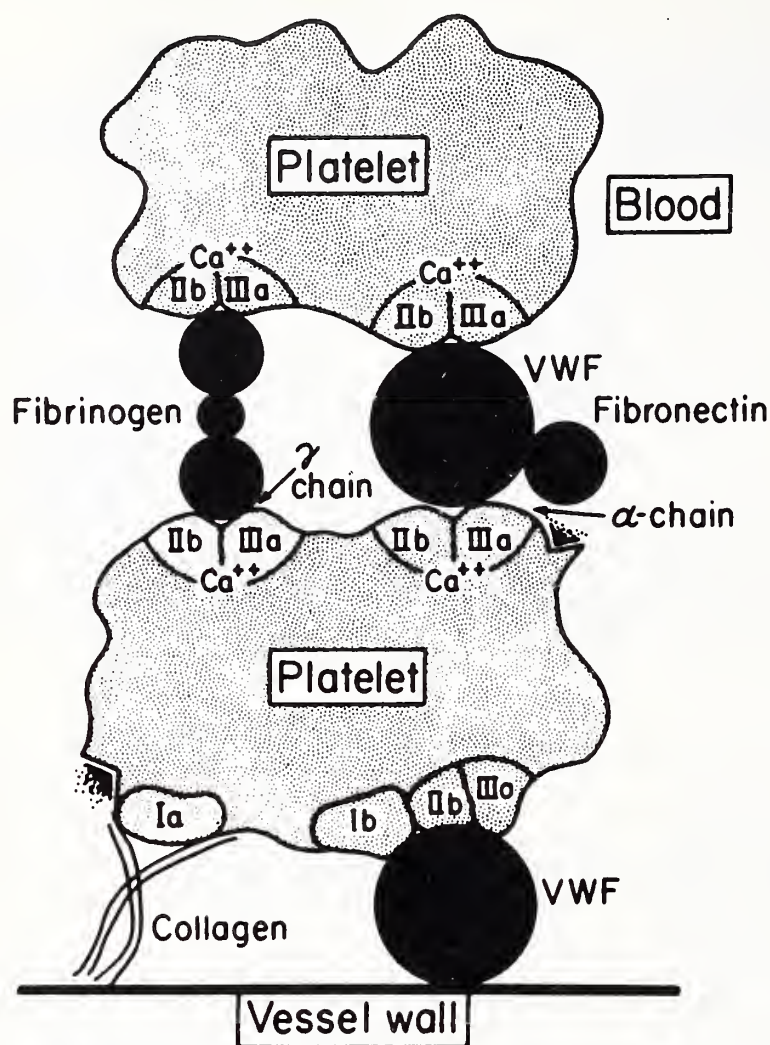


Figure 1: Diagrammatic representation of the platelet and endothelial surface. The glycoprotein IIb/IIIa receptor is an "integrin", a family of cell surface adhesive protein receptors. Integrelin, a IIb/IIIa receptor blocker, blocks attachment of the platelet to the endothelial surface and interaction of platelets. (From Fuster V, Badimon L, Cohen M, Ambrose JA, Badimon JJ, Chesebro J: Insight into the pathogenesis of acute ischemic syndromes. *Circulation* 1988;77:1213-1220, with permission of author and publisher.)

patients with unstable angina pectoris have been treated randomly with aspirin, low or high dose Integrelin. There was an 11% decrease in both symptomatic and 33% reduction in Holter defined asymptomatic ischemia with Integrelin.

**Acute Myocardial Infarction.** IMPACT-AMI is a trial which uses the combination of aspirin, heparin, weight-adjusted, front-loaded, r-tpa and Integrelin in patients with acute MI less than six hours since symptom onset. The primary endpoint of this study is coronary artery patency determined by coronary angiography. To date 109 patients have been enrolled with an estimated sample size of 170.

**Coronary Angioplasty.** IMPACT-I was a pilot evaluation in 150 patients undergoing coronary

angioplasty with standard balloon technology. There was nearly a 50% reduction in acute ischemic events (death, non-fatal MI, urgent bypass surgery or repeat coronary angioplasty or urgent intracoronary stent placement) with Integrelin. Major bleeding (intracranial bleed, or bleed with greater than a 15% decrease in hematocrit or 5 gm/dl in hemoglobin) was seen in eight percent of the placebo group and five percent in the patients who received Integrelin.

IMPACT-II is an ongoing prospective randomized trial of Integrelin in patients undergoing coronary angioplasty. This trial is designed to evaluate the efficacy and safety profile of the agent. As of this date, 2,794 patients have been enrolled out of a total sample size of 3,500 patients, with an estimated completion date of November 1994. The results of IMPACT-AMI and IMPACT-II will be reported in a future issue of *CCU*.

## CONCLUSION

Integrelin is a new synthetic antiplatelet agent which inhibits platelet-induced thrombosis. It has promise in the treatment of the wide spectrum of syndromes due to coronary artery disease. The primary side effect is bleeding. Exact clinical benefit and utility is being evaluated by ongoing clinical trials.

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3. Lewis HD Jr., Davis JW, Archibald DG, et al. Protective effects of aspirin against acute myocardial infarction death in men with unstable angina. Results of a Veterans Administration Cooperative Study. *N Engl J Med* 1983;309:396-403.
4. ISIS-2 (Second International Study of Infarct Survival) collaborative group. Randomized trial of intravenous streptokinase, oral aspirin, both, or neither among 17 187 of suspected acute myocardial infarction: ISIS-2. *Lancet* 1988;ii:349-360.



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**CHARLES L. SECREST, M.D.**

Dr. Secrest received his B.A. degree from the University of Mississippi, and earned his medical degree from the University of Mississippi School of Medicine. He completed his internship and residency in General Surgery at Baylor University Medical Center in Dallas, Texas; served a residency in Urology at the University Medical Center in Jackson, Mississippi; and a fellowship in Adult and Pediatric Reconstructive Urology at Eastern Virginia graduate school of Medicine in Norfolk, Virginia.



**JAMES E. KEETON, M.D.**

Dr. Keeton received his B.A. degree from the University of Mississippi and his medical degree from the University of Mississippi School of Medicine. He completed his internship and urology residency at University Medical Center, in Jackson, Mississippi. Dr. Keeton served a fellowship in Pediatric Urology (*Senior Registrar*) at the Hospital for Sick Children in London, England; and a fellowship in Urology (*Clinical Assistant*) at the Middlesex Hospital in London.

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## QUESTIONS AND ANSWERS:

### THE 1/8TH CENT CONSERVATION AMENDMENT

The 1/8th Cent Conservation Amendment is a proposed amendment to the Arkansas Constitution placed on the November ballot by the legislature. It would impose a 1/8th of a cent sales tax only on items now subject to the sales tax. The money from this tax would fund the state's conservation agencies: Arkansas Game and Fish Commission, Arkansas State Parks, Arkansas Heritage Department and the Keep Arkansas Beautiful Commission.

*Why is the 1/8th cent sales tax needed? Don't these agencies already receive state funds?*

The conservation agencies in Arkansas are facing a financial crisis. The needs have grown faster than revenues. Big maintenance programs have been put off while the condition of facilities and resources have gotten worse.

In fact, these agencies are suffering now because they've done such a good job in the past of operating on meager budgets. In the meantime, the state agencies facing the biggest problems of the day, such as prisons, education, health and human services have gotten more public money as the conservation agencies continued to get less.

Now, the years of under funding have caught up and the wear and tear on our natural and historic resources is beginning to show.

The problem for Game and Fish is complicated by the fact that they do not receive any state money. The amendment that established the Game and Fish Commission fifty years ago prohibits them from accepting any general revenues. They must operate on fishing and hunting license sales. Those sales are not growing while the cost of managing wildlife resources has continued to climb.

The Keep Arkansas Beautiful Commission has no budget. They operate only on what other agencies give them. This "beg and borrow" approach has made it possible to conduct a statewide anti-litter campaign.

*Is it a good idea to put a tax into the state constitution?*

Yes. Putting it in the constitution guarantees that the money is spent where you want it to be spent. This is money for programs not for bureaucracies. Also, for Game and Fish, putting the tax into the constitution is the only way to make it legal for them to receive general revenues.

*Is it a problem to collect such a small fraction of a penny in sales tax?*

No. The merchant is in many cases already collecting a fractional sales tax. The state sales tax is 4.5%. With the passage of the 1/8th Cent Conservation tax the rate would become 4.625%. Under most tax tables, small purchases would not be subject to collection. This tax is very small, and on a \$50 purchase you would only pay an additional 6 cents in tax.

*How much would be collected and how would the money be divided?*

It is estimated the tax would bring in about \$32 million a year:

- 45% (\$14.1 million) to Arkansas State Parks
- 45% (\$14.1 million) to Arkansas Game & Fish
- 9% (\$2.8 million) to Arkansas Heritage
- 1% (\$320,000) to the Keep Arkansas Beautiful

*How much will the 1/8th of a penny sales tax cost me?*

It is estimated that the tax will cost the average Arkansan about ten dollars a year. This figure could vary be only a few dollars depending on income and spending habits.

*How do we know the money will be spent where it's been committed?*

Again, because it is in the constitution, state lawmakers cannot reallocate the money. Also, each agency has already submitted a detailed yearly spending plan and is committed to following the plan if the voters approve the measure.

*Will State Park day-use fees end if this tax passes?*

The two issues are not directly linked but they could affect each other. Day-use fees were established after the legislature cut the State Parks budget by 20%. State Parks are already 70% self sufficient, but the big budget cut left park managers with no choice. They either charged a \$2 per vehicle day-use fee or closed some state parks. The 1/8th amendment money is not intended to replace the user fee but is needed to meet critical repair and operational needs. It is possible the user fee could be eliminated in future years, but that decision would be based on the level of funding available to State Parks.

*How would the money be used?*

Arkansas State Parks - The money would be used to attack a \$120 million backlog in repairs and improvements, to pay for operational programs and restore staff that were cut because of budget problems, as well as to pay for expansion plans.

Arkansas Game & Fish Commission - The money would be used for a wide range of programs including wildlife management and enforcement, education, land acquisition and leasing and restoring programs that were cut because of financial difficulties.

Arkansas Department of Heritage - The money (\$2.8 million) would be used in a 10-year program to rehabilitate historic structures, to enhance educational opportunities for the 24,000 children a year who visit Heritage Department museums and through educational outreach programs. Also the funding would start efforts to save thousands of priceless artifacts now in storage across the state, to fund new museum programs, to create new Main Street partnerships and to develop grant-in-aid programs for the arts, historic preservation and museums.

Keep Arkansas Beautiful - The money will give this agency a real budget. Keep Arkansas Beautiful will receive \$320,000 to pay for education programs and the first real Anti-Litter campaign in Arkansas history.





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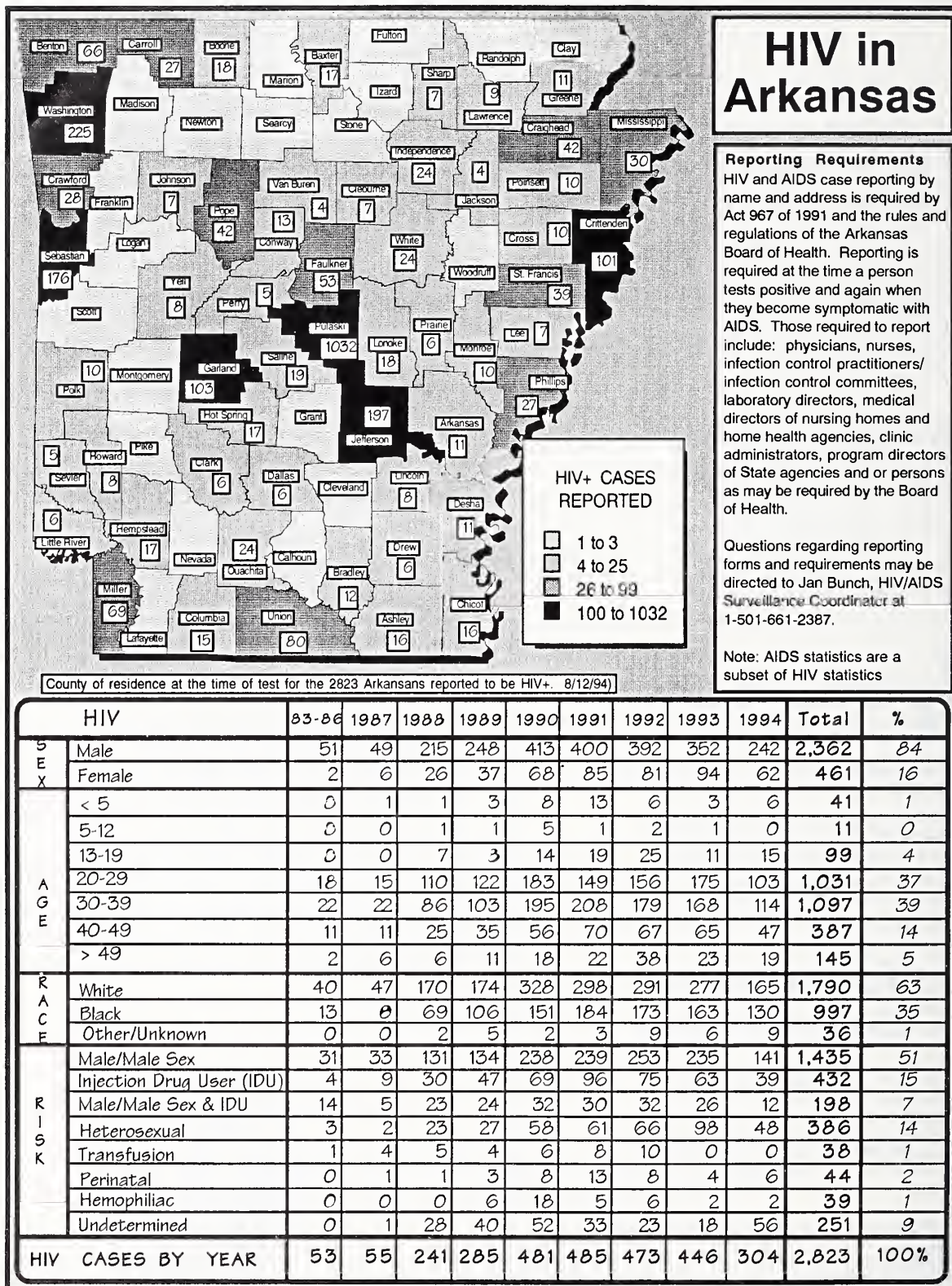
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# Arkansas HIV/AIDS Report

## 1983-1994

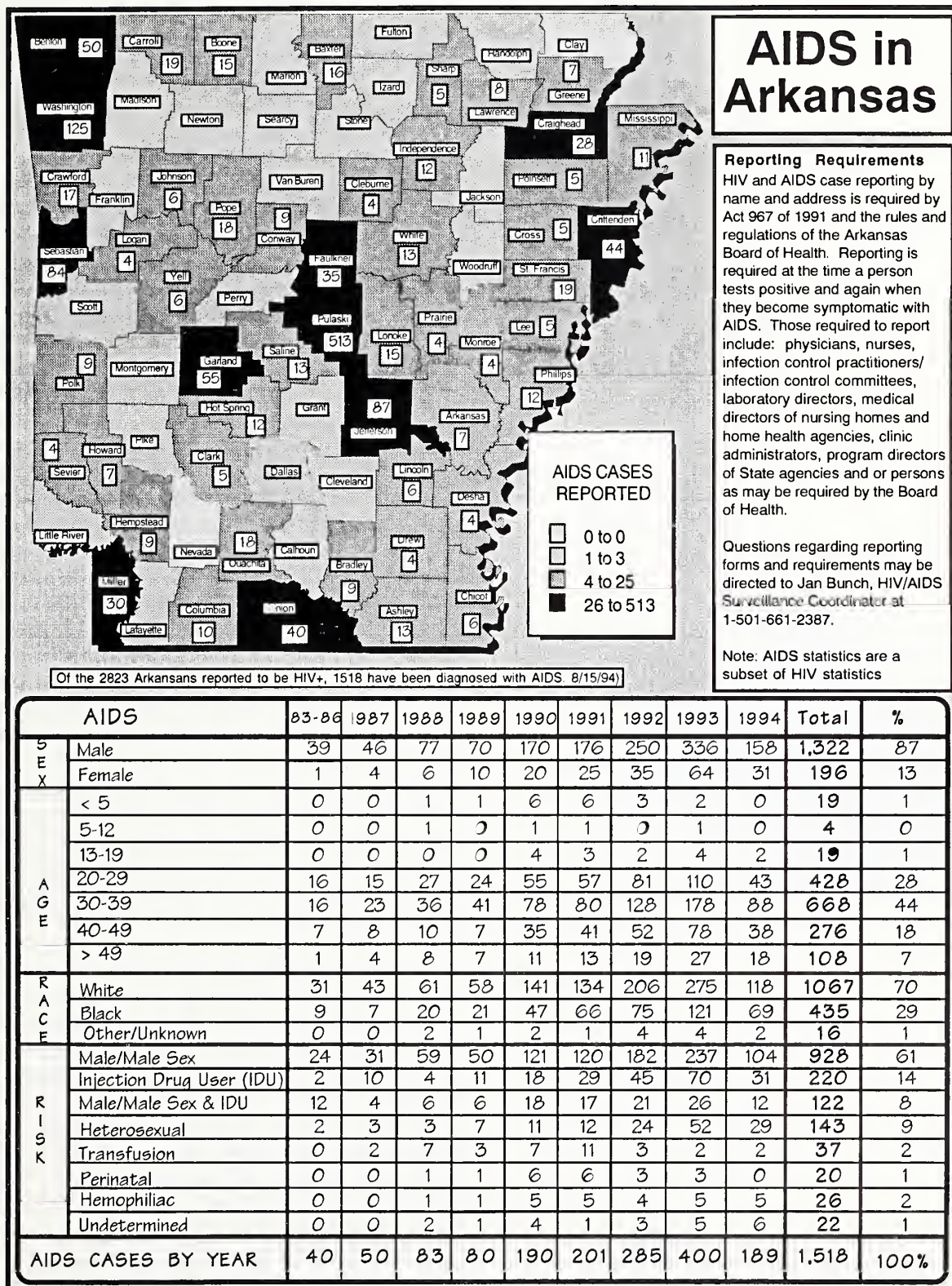


Source: AIDS Surveillance Unit, Arkansas Department of Health.



# Arkansas HIV/AIDS Report

## 1983-1994



Source: AIDS Surveillance Unit, Arkansas Department of Health.

# New Members

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## ARKADELPHIA

**Fullerton, John C., III**, General Surgery. Medical education, University of Virginia, Charlottesville, 1977. Internship/Residency, William Beaumont Army Medical Center, El Paso, Texas, 1982. Board certified.

## FAYETTEVILLE

**Gordon, Al**, Family Practice. Medical education, UAMS, Little Rock, 1991. Internship/Residency, AHEC-NW, Fayetteville, 1994. Board eligible.

**Taylor, Robert G.**, Plastic Surgery. Medical education, UAMS, Little Rock, 1986. Internship, Bowman Gray School of Medicine, Winston-Salem, N.C., 1991. Residency, International Craniofacial Institute, Dallas, Texas, 1992. Board eligible.

## HOT SPRINGS

**Mathews, John S.**, Gastroenterology. Medical education, UAMS, Little Rock, 1989. Internship/Residency, University of Missouri Hospital & Clinics, Columbia, 1992. Board certified.

## JONESBORO

**Johnson, Deborah A.**, Pathology. Medical education, UAMS, Little Rock, 1979. Residency, UAMS, 1983. Board certified.

## LITTLE ROCK

**Butcher, Joan R.**, Psychiatry. Medical education, Brown University, Providence, Rhode Island, 1989. Internship, The Miram Hospital/Brown University, 1990. Residency, Barnes Hospital/Washington University, St. Louis, 1993. Board eligible.

**Collins, Harold B., II**, OB/GYN. Medical education, University of Tennessee, Memphis, 1989. Internship/Residency, UAMS, 1993.

**Krisht, Ali F.**, Neurosurgery. Medical education, American University of Beirut Medical School, Lebanon, 1985. Internship/Residency, Emory University, Atlanta, Georgia, 1994. Board pending.

**Lewis, Charles L.**, Psychiatry. Medical education, UAMS, Little Rock, 1990. Internship, Barnes Hospital, St. Louis, Mo., 1991. Residency, UAMS, 1994.

**Lyle, Robert E.**, Neonatology. Medical education, University of Texas Health Sciences Center, San Antonio, 1986. Internship/Residency, University of Texas Health Sciences Center, 1993. Board certified.

**Seib, Paul M.**, Pediatric Cardiology. Medical education, Louisiana State University Medical Center, Shreveport, 1984. Internship/Residency, UAMS/Ar-

kansas Children's Hospital, 1987. Board certified.

**Spence, Don K.**, Anesthesia. Medical education, UAMS, Little Rock, 1987. Internship, Carolina's Medical Center, Charlotte, N.C., 1990. Residency, UAMS, 1994. Board certified.

## SHERWOOD

**Evans, Samuel C.**, Family Practice. Medical education, UAMS, Little Rock, 1991. Residency, UAMS, 1994. Board pending.

## SPRINGDALE

**Schemel, Lawrence J.**, Family Practice. Medical education, UAMS, Little Rock, 1991. Internship/Residency, University of Oklahoma College of Medicine, Tulsa, 1994. Board pending.

## OUT OF STATE

**Rudorfer, Bennett L.**, Memphis, Tenn. Medical education, New York University School of Medicine, 1986. Internship, University of Pittsburgh/Presbyterian Hospital, 1987. Residency, NYU Medical Center/VA Hospital, 1990. Board certified.

## RESIDENTS

**Ansari, Mohsin K.**, Neurology. Medical education, Indira Gandhi Medical College, Nagpur, India, 1978. Internship, Grant Medical College, Bombay, 1986. Residency, UAMS.

**Bailey, Don M.**, Internal Medicine. Medical education, Southern Illinois University School of Medicine, Springfield, 1994. Internship, UAMS.

**Baltz, Katherine H.**, Ophthalmology. Medical education, UAMS, Little Rock, 1994. Internship, UAMS. Residency, University of Missouri at Kansas City.

**Callahan, Stephen T.**, Pediatrics. Medical education, UAMS, Little Rock, 1994. Residency, UAMS.

**Connelley, Jon R.**, Anesthesia. Medical education, UAMS, Little Rock, 1992. Internship, University of Kentucky Medical Center, Lexington, 1993. Residency, UAMS.

**Dalton, Cara M.**, Anesthesia. Medical education, UAMS, Little Rock, 1994. Internship, UAMS.

**Daniel, George K.**, Internal Medicine. Medical education, Tanta University, Faculty of Medicine, Egypt, 1987. Internship, UAMS.

**Friesen, Gary M.**, Internal Medicine. Medical education, University of South Alabama, Mobile, 1989. Internship, Eisenhower Army Medical Center, Ft.



Gordon, Georgia, 1990. Residency, UAMS.

**Frost, Don A.**, Transitional. Medical education, UAMS, Little Rock, 1994. Internship, UAMS.

**Hagaman, Michael S.**, Family Practice. Medical education, UAMS, Little Rock, 1992. Internship/Residency, John Peter Smith, Ft. Worth.

**Hill, Chad**, OB/GYN. Medical education, UAMS, Little Rock, 1994. Residency, UAMS.

**Le, Hong M.**, Pulmonary. Medical education, University of Texas at San Antonio, 1991. Internship, UAMS, Little Rock, 1992. Residency, Methodist Hospital, Dallas, 1994. Fellowship, UAMS.

**Leachman, Michael R.**, Ophthalmology. Medical education, University of Texas Health Science Center, San Antonio, Texas, 1994. Internship/Residency, UAMS.

**Lee, Nora H.**, Internal Medicine. Medical education, UAMS, Little Rock, 1992. Internship/Residency, UAMS.

**Lee, Tyrone T.**, Pulmonary & Critical Care. Medical education, UAMS, Little Rock, 1990. Internship/Residency, UAMS, 1993. Fellowship, UAMS.

**Mallory, Michael D.**, Pediatrics. Medical education, Medical College of Georgia, Augusta, 1994. Internship, UAMS/Arkansas Children's Hospital, Little Rock.

**McDonald, Lori A.**, Family Practice. Medical education, UAMS, Little Rock, 1994. Internship, UAMS.

**McDuffie, Scott R.**, Internal Medicine. Medical education, University of North Carolina School of Medicine, Chapel Hill, 1991. Internship/Residency, Carolinas Medical Center, Charlotte, N.C., 1994. Fellowship, UAMS.

**McKee, John D.**, Internal Medicine. Medical education, UAMS, Little Rock, 1994. Internship, UAMS.

**Muwalla, Firas R.**, Internal Medicine. Medical education, University of Jordan School of Medicine, Amman, Jordan, 1992. Internship, University of Jordan School of Medicine, 1993. Residency, UAMS.

**Paredes, Mark F.**, Orthopaedic Surgery. Medical education, Wayne State University, Detroit, 1994. Residency, UAMS.

**Sailors, David M.**, Vascular Surgery. Medical education, Medical College of Georgia, Augusta, 1988. Internship/Residency, UT College of Medicine, Chattanooga, Tenn., 1994. Fellowship, UAMS.

**Soderberg, Keith C.**, General Surgery. Medical education, University of Utah, Salt Lake City, 1994. Internship, UAMS.

**Van Noy, Joanna W.**, Pathology. Medical education, University of Mississippi School of Medicine, Jackson, 1991. Internship, UT Southwestern/Parkland Memorial Hospital, Dallas, 1992. Residency, UAMS.

**Weaver, Steven G.**, Internal Medicine. Medical education, University of Tennessee, Memphis, 1989. Internship, University of Tennessee/Baptist Hospital,

1990. Residency, UAMS.

**Young, Jeffrey P.**, Transitional. Medical education, UAMS, Little Rock, 1994. Internship, UAMS.

## STUDENTS

James D. Cathey

David A. Diffine

Marion E. Hord

Jerri L. Hoskyn

Magda U. Kowalski

## The Lucky Ones



Not long ago, each of these children fought successfully against cancer. Therapies administered to them at St. Jude Children's Research Hospital saved their lives.

But there was something else that saved these kids — the many Americans who cared enough about the suffering of children to support a hospital devoted entirely to treating childhood catastrophic disease.

For more information on how you can help, write to St. Jude, P.O. Box 3704, Memphis, TN 38103, or call 1-800-877-5833.



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More than anyone else, YOU have the power to convey the importance of mammography to your patients.

While regular mammograms are important for women over 40, the risk of breast cancer increases with age, so it becomes critically important that all women over 50 have a mammogram every year.

Annual mammography is crucial for early detection and intervention—it is a woman's only true protection. Yet too many women are not hearing this message.

So no matter what your specialty, the American Cancer Society needs you to recommend an annual mammogram for every woman over 50.

Take the first step. Call 1-800-ACS-2345 for information and literature that can help you make an impact.

**COMING FROM YOU, IT MEANS SO MUCH MORE.**



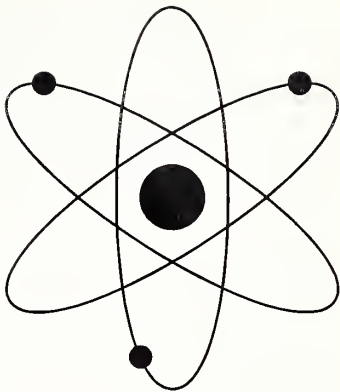
A Public Service of  
This Publication

*give the word.*  
**MAMMOGRAM**  
EVERY YEAR AFTER 50





# Radiological Case of the Month



Steven R. Nokes, M.D.  
W. Bradley Pierce, M.D.

**History:**  
This 17-year-old male presented to the emergency room with testicular pain. An ultrasound (US) was performed (Figures 1 & 2).

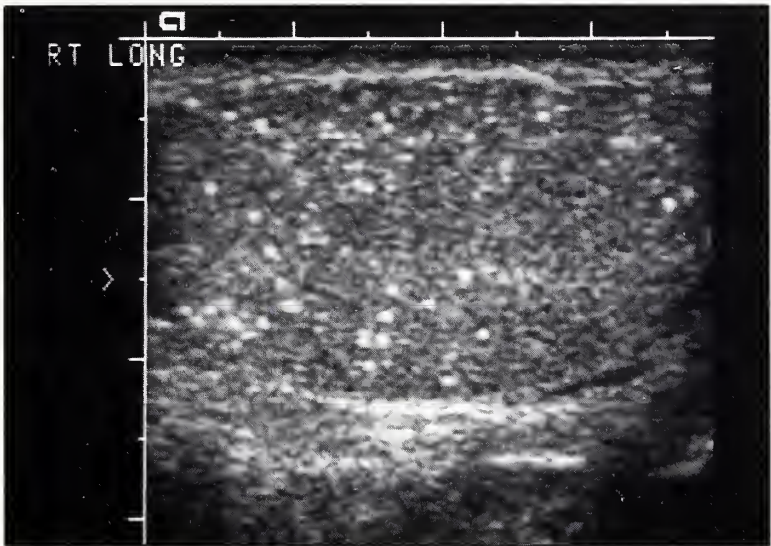


Figure 1: Longitudinal US of the left testicle.

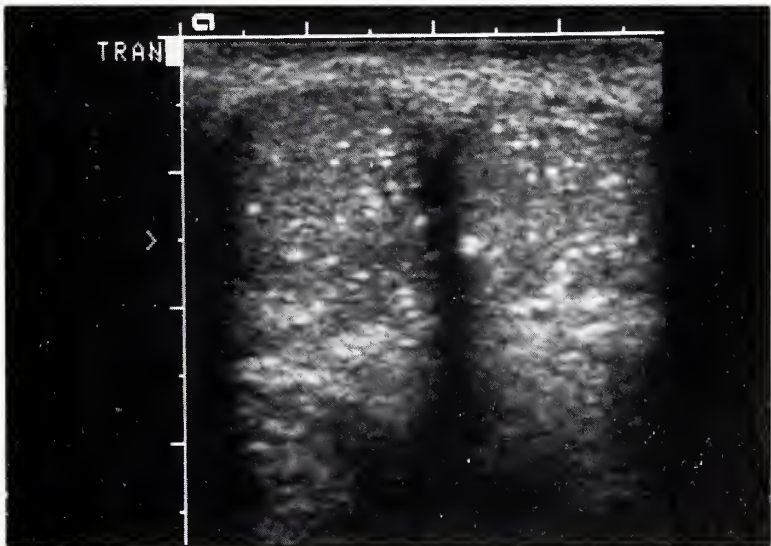


Figure 2: Transverse US of both testicles.

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# Testicular microlithiasis.

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## Findings:

Both testicles have an abnormal speckled pattern without acoustic shadowing.

## Discussion:

US is a sensitive and specific method of assessing testicular abnormalities. Normal testes reveal homogeneous medium-level echogenicity. Focal echogenicities are occasionally seen within the testicle. These are usually due to granulomas, phleboliths or scars and are few in number. The sonographic appearance of testicular microlithiasis (TM) is characteristic, consisting of innumerable small (< 1mm) bright echogenic foci (speckling) throughout both testicles. The hyperechogenic foci seen with US represent calcified epithelial cells within the seminiferous tubules. The calcifications do not shadow even with high MHz transducers due to their small size. TM is associated with a number of diseases, including cryptorchidism, infertility, pulmonary alveolar microlithiasis, torsion and intratubular germ cell neoplasia. A recent review of 42 cases of TM revealed a 40% incidence of associated germ cell neoplasm (including seminoma). Because of this association, a careful search for a focal mass is necessary when TM is discovered.

## References

1. Backus ML, Mack LA, Middleton WD, et al. Testicular microlithiasis: imaging appearances and pathologic correlation. *Radiology* 1994;192:781-785.
2. Jansen DL, Mathieson JR, Marsh JI, et al. Testicular microlithiasis: sonographic and clinical features. *AJR* 1992;158:1057-1060.
3. Ikingier U, Worster K, Terwey B, Moring K. Microcalcifications in testicular malignancy: diagnostic tool in occult tumor? *Urology* 1982;19:525-528.

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## Authors:

Steven R. Nokes, M.D., is associated with Radiology Consultants in Little Rock.

W. Bradley Pierce, M.D., is associated with Radiology Consultants in Little Rock.





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# AMS Newsmakers

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**Dr. John E. Alexander, Jr.**, of Magnolia, was installed as vice president of the Arkansas Chapter, American Academy of Family Physicians at its 47th annual scientific assembly recently held in Little Rock at the Statehouse Convention Center.

**Dr. Leslie Anderson**, of Lonoke, was named Arkansas Academy Family Physician of the Year for 1994-1995 recently. He will now compete for the National Family Care Physician of the Year. The winner will be announced in spring of 1995.

**Dr. Robert Baker**, a retired admiral and U.S. Navy physician of Mountain Home, was honored by the American College of Obstetricians and Gynecologists which formed the Admiral Baker Society recently. The society recognizes his honorable service and continued interest in the Navy.

**Dr. Ralph Maxwell**, a general practice physician from Monticello, recently accepted congratulations and a certificate of appreciation from Royce Aston, director of the Arkansas Baptist Home for Children,

for his service in fulfilling the medical needs of children at the home.

**Dr. Stuart McConkie**, of Hot Springs Village, was elected president of the Mid-Central States Orthopaedic Society at its last meeting. Mid-Central States encompasses an area from Wyoming to Iowa to Arkansas and has a membership of over three hundred.

**Dr. James J. Pappas**, of Little Rock, has been elected chairman of the Baptist Medical System Foundation Board of Trustees for 1994. He is the immediate past-president of the Foundation. The Baptist Medical System Foundation exists to provide financial support for Baptist Medical System to ensure its mission of providing quality, patient-centered health care. Dr. Pappas is a 1954 graduate of the University of Arkansas and a 1956 graduate of the University of Arkansas School of Medicine. He is an otologist in private practice in Little Rock at the Ear and Nose-Throat Clinic, P.A.

## In Memoriam

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### **Robert Gordon Carnahan, M.D.**

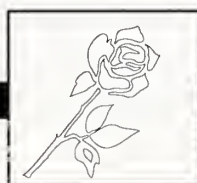
Dr. Robert Gordon Carnahan, of Little Rock, died Monday, August 22, 1994. He was 80.

Survivors include his wife, Sara Elisabeth Carnahan; two sisters, Marvin Ryland of Pine Bluff and Mona Casteel of Ft. Lauderdale, and many nieces and nephews.

### **Sammy Loyd Cornwell, M.D.**

Dr. Sammy Loyd Cornwell, of Clarendon, Texas, a native of Dardanelle, died Tuesday, August 9, 1994. He was 54.

Survivors include his wife, Kathy Cornwell; a brother, Mike Cornwell of Danville; a sister, Carol Moseley of Dardanelle; two nephews, Jimmy Moseley of Dallas, Texas, and Rush Cornwell of Danville; four nieces, Kelly Tatum of Russellville, Michaelle Wilkens of Danville, Allison Cornwell of Little Rock and Ashley Cornwell of Conway; three uncles, Ray Cornwell of Prairie Grove, Gilbert Cornwell of Dardanelle and Ted Masters of Pismo Beach, Calif., and an aunt, Bessie Downs of Dardanelle.





## Vaccines For Children (VFC) Update

The Vaccines For Children (VFC) Program, which was scheduled to begin in October, will be delayed for private physicians in Arkansas because the national distribution system is not in place. However, the Centers for Disease Control and Prevention is negotiating with vaccine manufacturers to develop a distribution system. If this is settled the VFC Program could begin as early as January.

In order to implement the VFC Program, as soon as possible, the Arkansas Department of Health is sending out provider packets and enrollment forms. They are requesting the forms be returned immediately, so vaccine can be ordered as soon as the program goes into effect.

According to the Medicaid Program, no procedural or reimbursement changes will be made by them until the program goes into effect or no later than April 1, 1995. Both the Department of Health and Medicaid will be sending information to physicians.

If you have any questions concerning the VFC Program, contact the Department of Health at 1-800-574-4040 or for Medicaid questions call 1-800-482-1141.

## Health Care Access Foundation Update

As of September 1, 1994, the Arkansas Health Care Access Foundation has provided free medical service to 8,008 medically indigent persons, received 15,372 applications and enrolled 31,113 persons.

This program has 1,690 volunteer health care providers including medical doctors, dentists, hospitals home health agencies, and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.

## AMA Launches TV/Radio Ad Campaign For Health Reform

The American Medical Association stepped up its health system reform advertising campaign with its first-ever television commercial. In the ad the AMA promises "to keep working with Congress to make sure health system reform" is passed that protects patient rights, quality care and the patient-physician relationship.

The 60-second spot featuring AMA President Robert E. McAfee, M.D., began airing in September on the Cable News Network (CNN) and CNBC. Radio ads began airing on several Washington, D.C., stations.

The AMA chose to use television and radio ad-

vertising in this phase of its advertising program to talk more directly with patients and opinion leaders on behalf of physicians about the need for reform "that will let you and your doctor make medical decisions without interference from insurance companies."

"As we have said for over four years, the status quo in our health system will not do," said Dr. McAfee, a surgeon from Portland, Maine, in a separate interview. "And unfortunately the will to correct the problems with our health delivery system may be slipping. Our ads say clearly that we will continue to push for health reform until we get what patients need and deserve."

The AMA "Dr. Bob" commercials advocate reform that would protect the right of patients to choose their physician, their health plan and ensure medical decisions are made by physicians. Physicians are finding increased interference from insurance companies in patient care decisions, according to Dr. McAfee.

The AMA decided to launch this latest version of their health system reform ad campaign to make sure Congress, the Administration and patients know physicians remain committed to reform this year.

Dr. McAfee outlined the AMA's Patient Protection Act, increased tobacco taxes, insurance reforms and professional liability reforms as reform steps possible in the next month.

The TV commercials began airing in September during the "Larry King Live Show" on CNN and were scheduled to run through October 7.

The half-million dollar TV and radio campaign follows a multi-million dollar print advertising campaign by the physician association conducted over the last four years. To date the AMA ads have appeared in *Time*, *Newsweek*, *U.S. News and World Report*, *The Wall Street Journal*, *The Washington Post*, *USA Today* and *The New York Times*.

## Women in Medicine Update

Today, women comprise over 20% of all U.S. physicians and over 40% of medical students. The AMA projects that by the year 2010, women will make up 305 of the physician population.

This growth is reflected in the increased participation and influence of women in organized medicine. According to AMA Membership Facts/1993, the number of female AMA members increased by 24.4% over the past four years, making this the fastest growing membership segment.

Equally important is the continuing growth of women physicians in leadership positions in the AMA

and throughout the Federation. Women serve on the AMA Board of Trustees, as presidents of their medical societies, and in the AMA House of Delegates. Only five years ago, women represented 5.7% of the House membership; by the last meeting, A-94, that percentage had almost doubled to 10.2%.

### **NCPIE's "Talk About Prescriptions" Month Targets Noncompliance**

"Communication is Good Medicine," will be the message for health professionals and consumers during the 9th national "Talk About Prescriptions" Month, sponsored by the National Council on Patient Information and Education (NCPIE) this October. The theme emphasizes the vital role patient-provider communication plays in promoting medication compliance and positive patient health outcomes.

"Talk About Prescriptions" Month is the only national public health observance to focus health care professional attention on the crucial role of provider-patient communication about prescription medicines in achieving improved medication compliance and positive patient outcomes. Through the annual "Talk About Prescriptions" Month, health care professionals and patients can receive communication and counseling tips, access to educational resources, and support for improving more effective communication about prescription medicines.

### **Upcoming AMA Hospital Medical Staff Section Assembly Meeting**

The 24th Assembly Meeting of the American Medical Association Hospital Medical Staff (AMA-HMSS) will be held on December 1-5, 1994 at the Sheraton Waikiki Hotel in Honolulu, Hawaii. Aside from participating in the development of AMA policy, representatives will have an opportunity to network with colleagues, dialogue with the AMA Board of Trustees and hear the latest news and information on health system reform.

With a changing health care environment, broader diversity within the physician population, limited resources and an overriding need for unity of purpose and action by organized medicine, the AMA has undertaken a study of the Federation.

The study, involving county, state and specialty societies, the AMA, and other related organizations, intends to uncover useful information for developing ways to increase membership, member participation and advocacy as well as improve communications, medical society performance and resource utilization.

Project leaders have asked the AMA-HMSS to participate in the process because it effectively represents grassroot physician concerns. Input from each HMSS representative also will be extremely valuable

in defining organized medicine in the future.

The 1994 Interim AMA-HMSS Assembly Meeting Education Program will host the Consortium study on December 3. Data collected and analyzed will facilitate the following objectives:

- Identify current and future needs, expectations and preference of physicians and others for organized medicine;
- Explore membership ideas and options;
- Assess how medical societies relate to each other - including ways to be more supportive, avoid duplication of effort, leverage strengths and better address weaknesses;
- Discover whether there are better tools/technologies that medical societies can use to communicate with one another and their members; and
- Enable medical societies to work smart in a more focused and purposeful way.

### **Whitaker, NIH Commit \$2 Million to Cost-Effective Medical Technologies**

The Whitaker Foundation and the National Institutes of Health will award up to \$2 million for research on new monitors, drug delivery systems and miniature sensors for cost-effective disease prevention and treatment.

These new grants are designed to stimulate research and development on new cost-effective bioengineering approaches to disease prevention, treatment and rehabilitation. An underlying aim is to ensure that technology is part of the solution to the problem of spiraling health care costs.

The Whitaker Foundation and the NIH's National Center for Research Resources have each set aside \$1 million to fund a series of four-year grants. The size and number of awards will depend on the number and quality of applications.

Proposals must identify a significant patient group that would benefit from the proposed technological innovation and must assess the potential impact on health care costs.

This is The Whitaker Foundation's second grant program to address the issue of health care costs through innovations in biomedical engineering research. The first began in 1993 in collaboration with the National Science Foundation. A total of \$1.4 million was awarded. The program continued this year under the title Cost-Reducing Health Care Technologies.

The Whitaker Foundation is a private, nonprofit foundation created in 1975. It supports research and education in biomedical engineering, a field that combines the techniques of engineering and medicine to prevent, diagnose and treat disease.



## Boone County Fish Fry

The Annual Boone County Fish Fry was held recently in Harrison. Legislators were welcomed by local physicians. Among those in attendance were state Senators Steve Luelf and Jon Fitch and state Representatives Billy Joe Purdom and Bob Watts as well as Representative-elect Randy Laverty.



Front: Dr. Robert Langston and Lynn Zeno. Back l to r: Senator Steve Luelf, Dr. James Kolb, Ken LaMastus, Rep. Billy Joe Purdom, Dr. Michael Moody and Rep. Bob Watts.



Dr. Charles Ledbetter and Dr. James Kolb.



# Things To Come

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## October 19-21

**Contemporary Cardiothoracic Surgery.** The Ritz-Carlton Hotel, St. Louis. Presented by the Division of Cardiothoracic Surgery and the Office of CME at Washington University School of Medicine. For more information, call (800) 325-9862.

## October 20-21

**Tools and Techniques for Improving Clinical Outcomes: A Practical Seminar for Physicians & Clinical Leaders.** Birmingham, Alabama. Presented by the Joint Commission on Accreditation of Healthcare Organizations. For more information, call (708) 916-5800.

## October 21-22

**Identification & Treatment of Wife/Partner Abuse: Clinical Interventions for Victims & Offenders.** Menninger Seeley Conference Center, Topeka, Kansas. For more information, call (800) 288-7377.

## October 24-28

**Prevention in Practice: Workplace Health in the 21st Century.** Denver Marriott City Center, Denver, Colorado. Sponsored by the American College of Occupational and Environmental Medicine. For more information, call Kay Coyne at (708) 228-6850, ext. 18.

## October 27-28

**Symposium on Obstetrics & Gynecology.** Marriott Pavilion Hotel Downtown, St. Louis. Sponsored by the Washington University School of Medicine. For information, call (800) 325-9862 or (314) 362-6893.

## October 28-29

**Men, Women & Sex: Psychotherapeutic & Pharmacologic Considerations for Therapists.** Menninger Seeley Conference Center, Topeka, Kansas. For more information, call (800) 288-7377.

## November 2-6

**88th Annual Scientific Assembly of the Southern Medical Association.** Orlando, Florida. For more information, call (800) 423-4992.

## November 3-4

**Nicotine Dependence: American Society of Addiction Medicine Seventh National Conference.** Boston Marriott Cambridge, Cambridge, Mass. Category I credit: 17.5 hours. For more information, call (202) 244-8948.

## November 4-5

**Taking Hold: Action Strategies for Women Dealing with Stress & Depression.** Menninger Seeley Conference Center, Topeka, Kansas. For more information, call (800) 288-7377.

## November 4-7

**New Dimensions in Mental Health Administration: 1994 (13th Edition).** The Monteleone Hotel, New Orleans, Louisiana. Sponsored by the Tulane University School of Medicine Department of Psychiatry and Office of Continuing Education. Category I credit: 28 hours. For more information, call (504) 588-5466 or (800) 588-5300.

## November 5-6

**Radical Perineal Prostatectomy: Laparoscopy in Urologic Surgery and Laser Prostatectomy.** Tulane University Medical School, New Orleans. Category I credit: 15 hours. For more information, call (504) 588-5466 or (800) 588-5300.

## November 10-13

**American Pain Society Annual Scientific Meeting.** Fontainebleau Hilton, Miami Beach, Florida. For more information, call Janet Schroeder, (708) 966-5595 or fax (708) 966-9418.

## November 10-13

**21st Anesthesia and the Geriatric Patient.** Marriott Pavilion Hotel Downtown, St. Louis, Missouri. Sponsored by the Washington University School of Medicine. For more information, call (800) 325-9862 or (314) 362-6893.

## November 11-13

**Anesthesia and the Geriatric Patient.** The Marriott Pavilion Hotel, St. Louis. Presented by the Washington University School of Medicine. For more information, call (800) 325-9862.



## November 11-13

**Anesthesiology Update: 1994.** Monterey Plaza Hotel, Monterey, California. Sponsored by Office of Continuing Medical Education, UC Davis School of Medicine and Medical Center. For more information, call (916) 734-5390.

## November 17-20

**Consultation-Liaison Psychiatry: The Bridge to Primary Care.** The Pointe @ Squaw Peak, Phoenix, Arizona. Sponsored by the Academy of Psychosomatic Medicines. For more information, call (800) 338-9391.

## November 18

**Women's Healthcare Issues.** Ritz-Carlton Hotel, St. Louis. Sponsored by the Washington University School of Medicine. For more information, call (800) 325-9862 or (314) 362-6893.

## November 18-19

**Primary Care Overview of Pain Management.** Inn at Napa Valley, Napa, California. Sponsored by the Office of Continuing Medical Education, UC Davis School of Medicine and Medical Center. Category I credit: 10 hours. For more information, call (916) 734-5390.

## November 30-December 3

**Understanding Managed Care: An Introductory Program for New Managers in HMOs.** Arizona Biltmore, Phoenix, Arizona. Sponsored by the GHAA. For more information, call (202) 778-3236.

## December 2-3

**Adolescent Violence: Intervention & Treatment.** Menninger Seeley Conference Center, Topeka, Kansas. For more information, call (800) 288-7377.

## December 10

**Eleventh Annual Clinical Update in Pulmonary Medicine.** Bally's Park Place Casino Hotel and Tower, Atlantic City, New Jersey. Sponsored by the Department of Pulmonary Medicine, Deborah Heart and Lung Center, Browns Mills, New Jersey. For more information, call (201) 385-8080.

## December 10

**Urodynamics for Urologists and Gynecologists.** UC Davis Medical Center Cancer Center Auditorium, Sacramento, California. Sponsored by the Office of Continuing Medical Education and UC Davis School of Medicine and Medical Center. Category I credit: 6 hours. For more information, call (916) 734-5390.

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**Description:** Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

**Action:** Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalamic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

**Indications:** Yocon<sup>®</sup> is indicated as a sympatholytic and mydriatic. It may have activity as an aphrodisiac.

**Contraindications:** Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

**Warning:** Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

**Adverse Reactions:** Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.<sup>1,2</sup> Also dizziness, headache, skin flushing reported when used orally.<sup>1,3</sup>

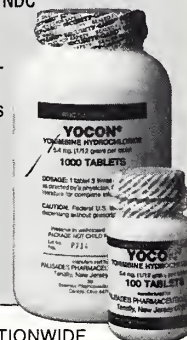
**Dosage and Administration:** Experimental dosage reported in treatment of erectile impotence.<sup>1,3,4</sup> 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.<sup>3</sup>

**How Supplied:** Oral tablets of Yocon<sup>®</sup> 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

### References:

1. A. Morales et al., New England Journal of Medicine: 1221, November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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# Keeping Up

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## **Chronic Pain Management**

October 13, 12:00 noon, MCSA Union Medical Campus Conf. #3, El Dorado. Presented by Robert E. Powers, M.D. Category I credit offered: 1.0 hour. Lunch provided.

## **Update in Primary Care Geriatrics Parts II and III**

October 15 and November 12, 8:00 a.m., Washington Regional Medical Center, Fayetteville. Dates coincide with Fayetteville Razorback football games (and War Eagle Craft Fair weekend, Oct. 15). For more information, call 442-1823. For Razorback football tickets, call 1-800-982-HOGS (4647). Category I credit: 2.0 hours each session.

## **Traumatic Brain Injury in the Child and Adolescent**

October 21, Registration 8:00 a.m., Arkansas Children's Hospital Brandon Conference Center, Little Rock. Sponsored by UAMS and presented by Kerstin Sobus, M.D. Category I credit: 5.25 hours.

## **National Multiple Sclerosis Society Arkansas Chapter Annual Membership Meeting**

October 21 & 22, Baptist Medical Center, J.A. Gilbreath Conference Center, Little Rock. Sponsored by Baptist Medical Center. For more information, call 663-6767 or 1-800-FIGHT MS.

## **Eleventh Annual Conference on Perinatal Care**

November 3-4, time to be announced, Hilton Inn, Little Rock. Sponsored by UAMS and presented by J. Gerald Quirk, M.D.

## **Treatment of Chronic Obstructive Pulmonary Disease**

November 10, 12:00 noon, MCSA Union Medical Campus Conf. Rm. #3, El Dorado. Sponsored by AHEC-South Arkansas and presented by Gerardo San Pedro, M.D. Category I credit: 1 hour. Lunch provided.

## **Drug Update**

November 25, 12:00 noon, MCSA Union Medical Campus Conf. Rm. #3, El Dorado. Sponsored by AHEC-South Arkansas and presented by Tom Franks, M.D. Category I credit: 1 hour.

## **Recurring Education Programs**

As organizations accredited for continuing medical education by the Arkansas Medical Society, the organizations named certify that these continuing medical education activities meet the criteria for the credit hours specified in Category I of the Physician's Recognition Award of the American Medical Association.

### **FAYETTEVILLE-VA MEDICAL CENTER**

General Medical Topics, Thursdays, 12:00 noon, Auditorium, Bldg. 3  
Medical Grand Rounds, Thursdays, 12:00 noon, Conference Room, Bldg. 4

### **HOT SPRINGS-AMI NATIONAL PARK MEDICAL CENTER**

Continuing Medical Education Luncheon, Oct. 14 & 28, 12:30 p.m., AMI Ozark - Quapaw Room

### **LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL**

Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium  
Genetics Conference, Wednesdays, 12:00 noon, Sturgis Bldg., room 457  
Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom  
Pediatric Grand Rounds, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium  
Pediatric Neuroscience Conference, 1st Thursday, 8:00 a.m., 2nd Floor Classroom  
Pediatric Pharmacology Conference, 5th Wednesday, 12:00 noon, 2nd Classroom  
Pediatric Research Conference, 1st Thursday, 12:00 noon, 2nd Floor Classroom

### **LITTLE ROCK-ST. VINCENT INFIRMARY MEDICAL CENTER**

Cancer Conferences, Thursdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Chest Conference, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Sandwich buffet served  
General Surgery Grand Rounds, 1st Thursday, 7:00 a.m. Smith Room. Light breakfast provided.



GYN Surgery Cancer Conference, 2nd Monday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
 Interdisciplinary AIDS Conference, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
 Joint Tumor Conference, 1st Wednesday, 12:00 noon. CARTI Auditorium. Lunch provided.  
 Journal Club, Tuesdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
 Mental Health Conference, 3rd Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
 Urology Grand Rounds, 1st Tuesday, 5:30 p.m., Southwestern Bell/Arkla room. Refreshments provided

#### **LITTLE ROCK-BAPTIST MEDICAL CENTER**

Anesthesiology Conference, 3rd Thursday, 7:00 a.m., Conference Room 1  
 Breast Conference, 3rd Thursday, 7:00 a.m., Conference Room 1  
 GI Conference, 4th Friday, 11:30 a.m., Conference Room 1  
 Grand Rounds Conference, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.  
 Pathology Conference, 1st Tuesday, 3:00 p.m., Pathology Library  
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*OB/GYN Grand Rounds*, Wednesdays, 7:45 a.m., UAMS Education Bldg., room G/131B  
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*Orthopaedic Basic Science Conference*, Tuesdays, 8:00 a.m., UAMS Education Bldg., room B/135  
*Orthopaedic Bibliography Conference*, Tuesdays, 8:30 a.m., UAMS Education Bldg., room B/135, 1.5 credit hours  
*Orthopaedic Fracture Conference*, Tuesdays, 7:30 a.m., UAMS Education Bldg., room B/135  
*Orthopaedic Grand Rounds*, Tuesdays, 10:00 a.m., UAMS Education Bldg., room B/135  
*Pathology Autopsy Conference*, Wednesdays, 12:00 noon, VAMC-LR Morgue  
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*Surgery Basic Sciences Conference*, 1st Saturday, 7:30 a.m., ACRC 2nd floor conference room  
*Surgery Grand Rounds*, Saturdays, 8:30 a.m., ACRC 2nd floor conference room  
*Surgery Morbidity & Mortality Conference*, Saturdays, 9:30 a.m., ACRC 2nd floor conference room  
*Surgery Resident Case Conference*, Saturdays (except 1st), 7:30 a.m., ACRC 2nd floor conference room  
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*Urology Formal Teaching (Grand) Rounds*, once or twice monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Journal Club*, once a month, 5:00 p.m., VAMC-LR, 4D  
*Urology Morbidity & Mortality Conference*, once monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Pathology Conference*, 4th Thursday, 5:00 p.m., VAMC-LR, 4D  
*Urology Pediatric Conference*, once monthly, 5:00 p.m., ACH Sturgis Bldg., Clinic 2  
*Urology Pre-op/Didactic Conference*, Mondays, 5:00 p.m., VAMC-LR, 4D  
*Urology Radiology Conference*, 1st Thursday, 5:00 p.m., UAMS, Radiology Department  
*Urology Teaching Conference*, Wednesdays, 5:00 p.m., VAMC-LR, 4D  
*Urology VA Teaching Rounds*, every Friday, 7:30 a.m., VAMC-LR, 4D  
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*VA Medicine Resident's Clinical Case Conference*, Fridays, 12:00 noon, VAMC-LR, room 2D08  
*VA Physical Medicine & Rehab Grand Rounds*, 4th Friday, 11:30 a.m., VAMC-NLR Bldg. 68, room 118 or Baptist Rehab Institute  
*VA Surgery Grand Rounds*, Thursdays, 12:45 p.m., VAMC-LR, room 2D109, 1.25 credit hours  
*VA Topics in Rehabilitation Medicine Conference*, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR Bldg. 68, room 118  
*VA Weekly Cancer Conference*, Monday, 3:00 p.m., VAMC-LR, room 2E-142  
*White County Memorial Hospital Medical Staff Program*, once monthly, dates & times vary, White County Memorial Hospital, Searcy

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*GYN Conference*, 2nd Friday, 12:30 p.m., AHEC-South Arkansas  
*Internal Medicine Conference*, 1st, 2nd & 4th Wednesday, 12:30 p.m., AHEC-South Arkansas  
*Noon Lecture Series*, 2nd & 4th Thursday, 12:00 noon, AHEC - South Arkansas. Lunch provided.  
*Pathology Conference*, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas





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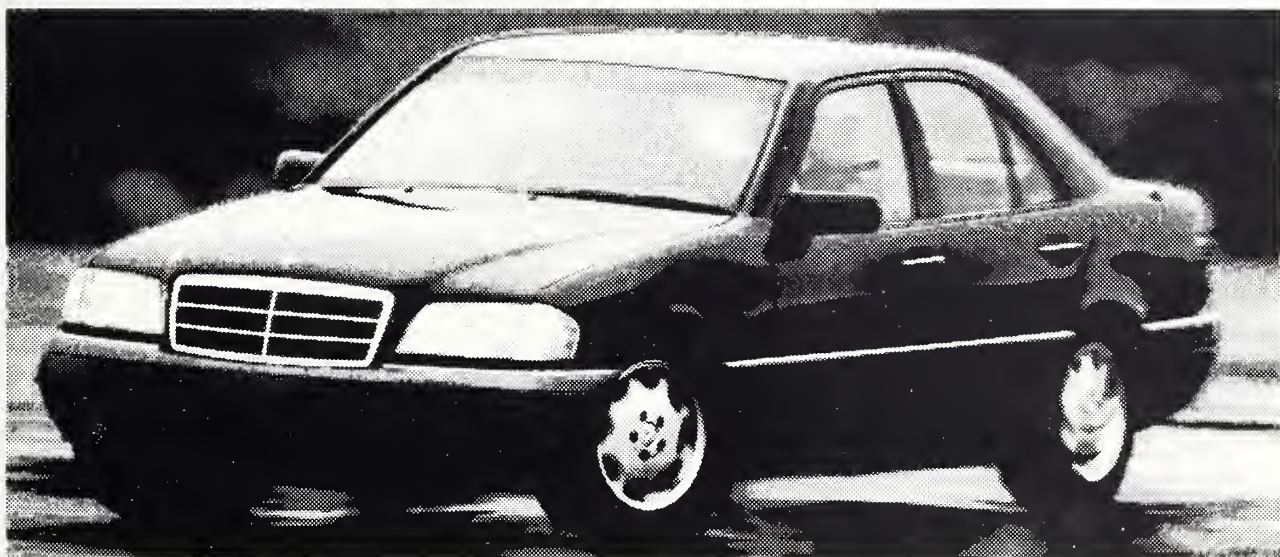
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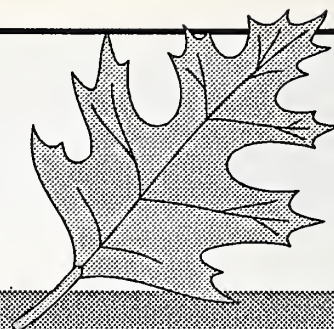


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# rkansas Medical Society 1994 Fall Meeting

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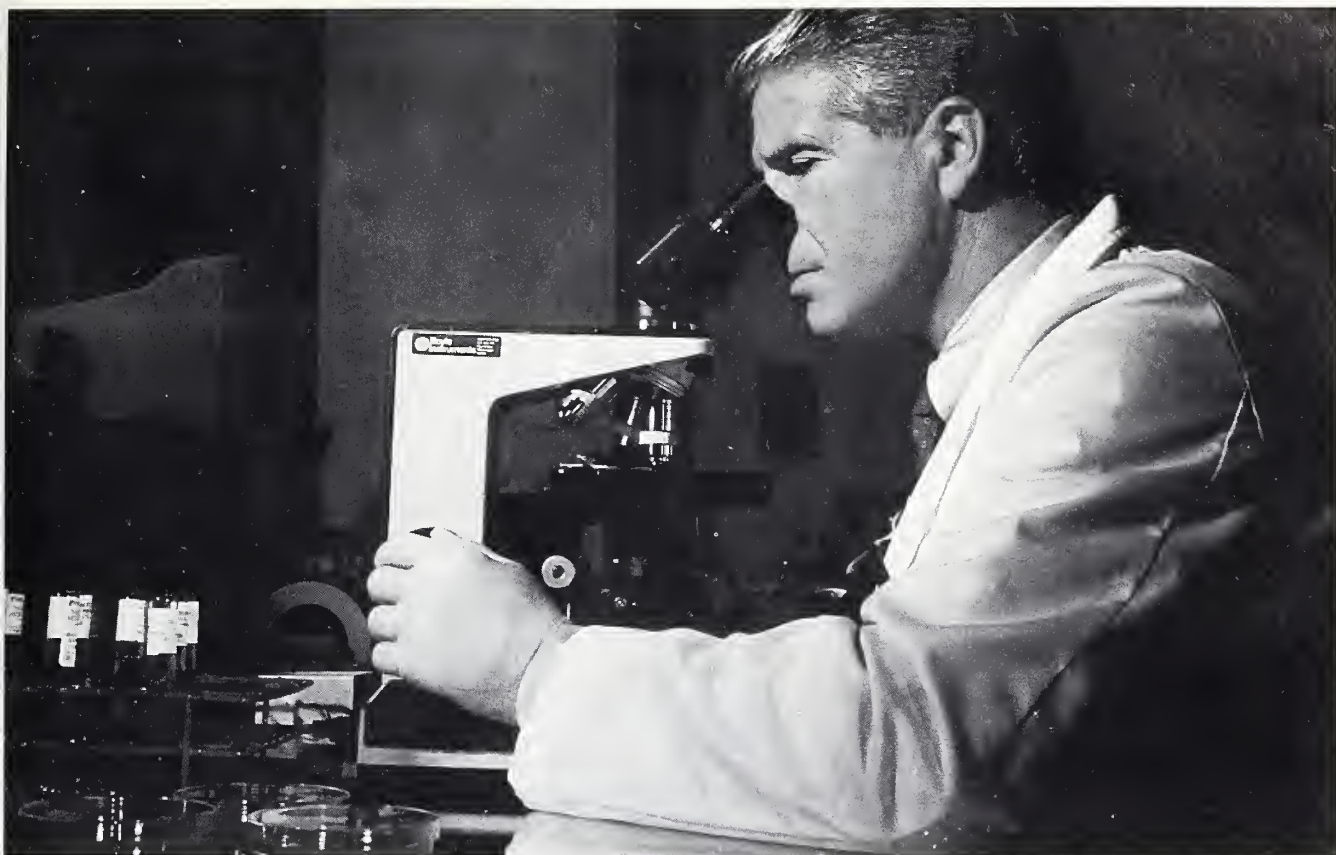
Sunday, November 20, 1994  
DeGray Lodge  
Lake DeGray State Park

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## Tentative Schedule

9:00 a.m.	Council Meeting
10:30 a.m.	Brunch <i>AMS members and guests invited.</i>
11:30 a.m.	House of Delegates <i>Discussion about 1995 Arkansas General Assembly, AMS legislative proposals and expected issues to come before the Legislature.</i>





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# Medicine's New Face

David S. Bachman, M.D.\*

It has been eight short years since I switched careers from surgery to journalism and health education.

If medicine were a "kid on the block", I would not know him after eight years of absence - he has changed so much.

New words fill the medical vocabulary - client instead of patient, a physician provider instead of a healer of the sick.

"Managed care" is a clerk who controls which provider a client can see and tries to convince the client that he is seeing the best possible provider.

A "code" is a method of payment for a service, irrespective of time, skill or degree or difficulty.

Today, physicians are expected to be infallible - their services taken for granted.

Doctors are looked upon as greedy despots - expected to give something for nothing. When they try to collect their due, insurers chastise them and patients threaten.

The fact doctors still must pay the plumber and the mechanic matters little to patients and providers.

Today's doctors lack my memories of thankful patients and compassionate peers.

My "days of surgery" consisted of a scalpel and incisions - not puncture holes for insertion of laparoscopic instruments or laser surgery.

Yesterday's harmonious cohesion with doctors and hospitals have gone by the wayside; now, hospitals are setting up their own core of doctors to supply patients for their hospital beds.

Patients are "herded" into groups and certain doctors named for their care.

"Free choice" is still there, provided you pay extra.

The same "free choice" exists for hospitals - client groups are assigned to a certain hospital - freezing out nearby competing hospitals and limiting the patient's hospital choice; unless he foots part of the hospital bill himself.

Some of the changes in medicine are long overdue, others self defeating: designating certain hospitals for specialized treatment will be cost saving. Duplication of facilities have driven up the cost of medical care; e.g., there is no reason for five hospitals in a close area to offer cardiac surgery - each hospital must spend countless dollars on equipment, and personnel yet underuse the surgical suite because of duplication of facilities at nearby hospitals.

We soon will see hospitals specializing in care - cardiac hospitals, cancer hospitals, terminal care facilities, obstetric hospitals, etc.

I see loss of empathy between patient and doctor - replaced by client and provider.

The caring doctor sitting at the patient bedside has been replaced by a computer and fax machine - the human side of medicine replaced with twentieth century mechanics.

Though many forthcoming changes are beneficial, patients will scream over exorbitant hospital and medical bills and will object to "the new order."

Medical care, the manner in which it is and will be handled, is due for radical change in the coming years.

As the prognosticator said, "You ain't seen nothin' yet."

Viewing medicine as it is today, were I to do it over again would I become a doctor? Would I be willing to go four years of college, four years of medical school, a year of internship, five years of surgical residency, sacrificing family for demands of the profession and be viewed as a greedy despot by the public?

Hardly. ■

\* Dr. David S. Bachman, now retired, practiced as a general surgeon and bronchosopagologist at the Millard-Henry Clinic in Russellville for 20 years.



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# Patterns of Food Choices Among Arkansans With Less Than A High School Education

Jamie Dollahite, Ph.D., R.D.\*

Cecilia Thompson, Ph.D.

Ronald McNew, Ph.D.

## ABSTRACT

This study surveyed students in Adult Basic Education (ABE) Programs in Arkansas to determine their pattern of food choices. The results indicated that entire food groups, e.g. vegetables, fruits, or milk were not included in the diets of many participants. This population more frequently chose high fat than low fat foods. Regression analyses indicated that the choice of low fat products increased with age and family income level. The most dramatic trends were in changes in consumption of dairy products, fruits, and vegetables. These data support the need for nutrition education in Arkansans with less than a high school education.

## INTRODUCTION

An understanding of the relationship between diet and chronic diseases has led to the development of Dietary Guidelines for Americans<sup>1</sup> and, more recently, the nutrition objectives for Healthy Arkansans 2000.<sup>2</sup> These Guidelines advise the public to decrease risk of heart disease and cancer by choosing foods low in fat, saturated fat and cholesterol and by increasing the intake of fruits, vegetables and grain products. They also recommend inclusion of dairy products to provide adequate calcium for bone development and maintenance, and possibly for protection against hypertension and colon cancer.<sup>3</sup>

Nationwide dietary and nutrition surveys, such as the National Health and Nutrition Examination Surveys (NHANES)<sup>4</sup> and the Nationwide Food Consumption Surveys,<sup>5</sup> report data that indicate that Americans do not meet the recommendations of the Dietary Guidelines. No information exists about the

diets of Arkansans and how these compare to the United States as a whole. It is important to have these data in order to determine how well the population is meeting current nutritional recommendations and what types of education and intervention are needed.

## METHODS

The purpose of this study was to collect baseline information for the development of nutrition education materials for low literacy adults. A questionnaire was designed which asked the frequency of consumption of 25 different food categories. No attempt was made to determine serving sizes. Food categories were chosen to include both high and low fat foods in various food groups where a range of choices is common. High fat food categories included high fat dairy products, high fat meats, fried foods and visible fats such as salad dressings, butter, and margarine. Low fat categories included items such as low fat milk, fruits, vegetables, and grain products. For 21 of the food categories, participants were asked how many times in seven days they ate each food. For the food categories for which there are daily recommendations (fruit or juice, vegetables and salads, bread, whole milk or low fat milk) and for butter or margarine, which are likely to be eaten every day, the participants were asked how many times in one day they ate the food. Whole milk and low fat milk appeared on both lists to assure that adults who drink milk only occasionally would be represented. Demographic data were also collected, including age, sex, family income and race. The questionnaire was designed in a simplified format, adapted from one developed at the University of Wisconsin for use with low literacy adults in the Expanded Food and Nutrition Education Program.

Questionnaires were hand delivered to teachers in 13 of the 53 ABE Programs in Arkansas and data collected over a one month period. The programs

\* Jamie Dollahite is Assistant Professor and Director, Didactic Program in Dietetics, University of Arkansas, Fayetteville. Cecilia Thompson and Ron McNew are also with the University of Arkansas, Fayetteville.



serve students seeking to complete high school equivalency through the General Education Development program (GED), as well as those needing more basic education. The 13 programs were chosen because they were located geographically throughout Arkansas and represented the ethnic diversity and urban-rural mix of the ABE and GED programs in the state. The teachers were individually instructed in how to assist the students in understanding and answering the questions without biasing the data through suggestions. Students responded to the questionnaire when they came for independent study or classes at the centers.

To determine the relation of the frequency of consumption of a food item to age and to income level, a quadratic regression of frequency was used on each of these variables. The lack of fit of the regression as well as the linear and quadratic components were tested. Actual ages, income categories, and frequency categories from the survey were used as values in these regressions. The pooled sample *t* test was used to compare frequencies of consumption between races.

## RESULTS AND DISCUSSION

Data were obtained from 807 students (66% female, 34% male), ranging in age from 16 to 77 years, representing 68% of the total ABE student population in the 13 programs. One hundred ninety-five subjects were less than 20 years old, 446 were 20 to 39 years old, 157 were 40 to 59 years old and nine were sixty or older. All participants had less than a high school education. Sixty-seven percent of the participants were in the GED Programs, 17% in the ABE Programs, and 16% did not indicate in which program they were enrolled. Family income levels were low with 48% being \$10,000 per year or less and less than 9% being over \$30,000 per year. Of the 84% who reported race, 64% were Caucasian, 18% African American, with Hispanics, American Indians and Asians making up the remaining 2%.

Within food categories in which both high and low fat choices are available, this population generally chose foods higher in fat. Over twice as many participants drank whole milk as non-fat milk. Forty percent ate cheese at least three times per week. High fat meats, including lunch meat, bacon, and sausage, were eaten at least three times per week by 53% of the population. This is similar to NHANES II data, in which 43% of the population reported consuming bacon or lunch meats,<sup>6</sup> and data from an elderly population in Georgia in which 58% reported consuming bacon or sausage in the previous 24 hours. Most of the population (70%) ate chicken on a regular basis, but this was fried as frequently as not. Forty-five percent ate fried fish, whereas only 16% ate fish that was not fried. Salad dressings were used on a daily

basis by 9% and at least three times per week by 24% of the population. Butter or margarine, on the other hand, was used every day by 97%, with over a third (35%) using these spreads at least three times per day. Participants were not asked to differentiate between traditional high fat food items and low fat substitutes available on the market today, such as low fat cheese, lunch meat, spreads, and salad dressings. Focus groups done with this population by the authors indicated that these products were not consumed in any quantity by this population because of higher cost and lack of familiarity.

The Dietary Guidelines for Americans include recommendations for minimum numbers of servings from all the food groups. These recommendations must be tied to serving size in order to accurately determine whether or not they are being met. Yet it is clear that many people in this population did not meet the recommendations because they reported never consuming products in certain categories. Twenty-nine percent of the population reported never consuming fruit or fruit juice and 21% reported never consuming vegetables or salads. Nine percent reported never including either fruits or vegetables in their diets. Nineteen percent drank no fluid milk at all; if people meet dairy, and hence calcium, recommendations they are more likely to drink fluid milk.<sup>7</sup> These data are similar to those representing the United States population as a whole.<sup>4</sup> Based on 24 hour recalls, NHANES II data indicated that 46%, 18%, and 24% of the population failed to consume fruit, vegetables and dairy products, respectively. Six percent of the NHANES II participants consumed neither fruits nor vegetables.<sup>8</sup>

The Dietary Guidelines for Americans recommend a minimum of two servings of fruit, three of vegetables, and six of grain products per day. Half of the population reported consuming fruit less than two times and vegetables less than three times a day. Sixty three percent chose grain products less than six times each day. However, because data were not collected regarding serving sizes the proportion of people actually meeting the recommendations may be higher than indicated by this data. The NHANES II data indicated that only 3% of the population surveyed included foods from all food groups in at least the minimum recommended number of servings.<sup>4</sup>

## EFFECT OF AGE

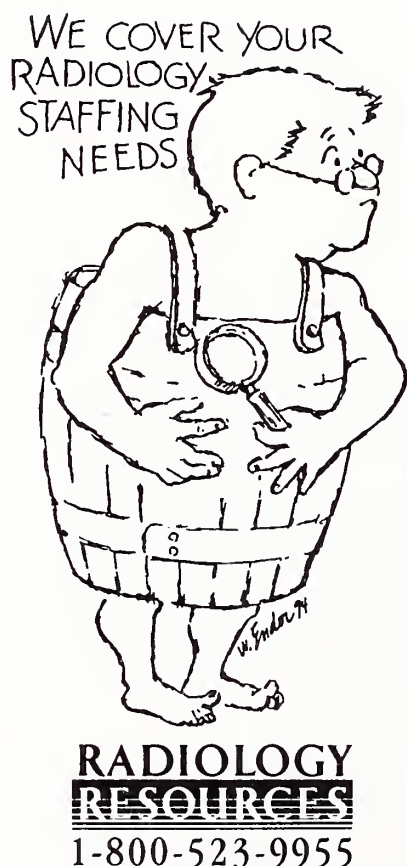
Regression analyses indicated that the number of people choosing low fat products increased significantly with age (Figure 1). The most dramatic trends were seen in changes in consumption of dairy products, fruits, and vegetables (Figure 2). In the data reported here, however, there appeared to be a shift in choices consistent with choosing a greater propor-

Decreasing frequency with age	Increasing frequency with age
Whole milk	Low fat milk
Beef	Fish
Pork	Rice
Sausage, bacon, lunch meat	Legumes
Fried chicken	Salad dressing
Cheese	Vegetables and salads
Pizza	
Noodles	
Cakes and pies	
Donuts and sweet rolls	

Decreasing frequency with increasing family income	Increasing frequency with increasing family income
Whole milk	Low fat milk
Sausage, bacon, lunch meat	
Pork	
Fried Chicken	
Eggs	
Legumes	
Bread	

Figure 1. Significant linear trends ( $p < 0.05$ )



tion of low fat foods. Survey data designed to be representative of the United States population show similar results. During the 1987-88 Nationwide Food Consumption Survey, aging was negatively correlated with percent of calories from fat for women 25 and older and for men 51 and older.<sup>5</sup>

Other studies have also reported low fat intakes as people age. Lieberman et al.<sup>9</sup> reported data indicating that significantly less energy, fat and carbohydrate were consumed by healthy 65-95 year old subjects when compared to those 20-35 years old. Although the older group also consumed a slightly lower percent of calories as fat, the authors did not report a statistical comparison of this variable between the age groups. Garry<sup>10</sup> studied 304 healthy adults greater than 60 years of age. They sampled these subjects twice, six years apart. Dietary fat decreased in percent of calories, as well as absolute amount, both as people aged and overall between the two sampling periods.

Houston, et al.<sup>11</sup> collected 24 hour recall data from a group of Georgians over sixty years old. The Southern cuisine was similar to that of the Arkansas population. The findings are consistent with the aging trend reported here. The elderly Georgia population chose fried chicken and fish less frequently, with only one-third who consumed chicken or fish during the previous 24 hours choosing them in the fried form. In addition, slightly over half of the Georgia population who reported drinking milk chose whole rather than lowfat milk as compared to the Arkansas population in which twice as many chose whole as compared to lowfat milk.

Little work has been done to investigate why people make lower fat choices as they age. One likely possibility is that this change reflects an increasing concern for health with age.<sup>12</sup>

## EFFECT OF FAMILY INCOME

The proportion of participants choosing low fat products was inversely related to family income (Figure 1). While the correlations between income and percent of calories from fat were negative in the 1987-88 Nationwide Food Consumption Survey, none was statistically significant. Data from randomly sampled, low income United States women related nutrient intake to self-reported food sufficiency status.<sup>13</sup> In this sub-population, where food sufficiency status was directly related to economic resources, no difference was seen in the percent of energy from fat. On the other hand, increasing income was clearly related to the choice of low fat foods among older Georgians.<sup>11</sup>



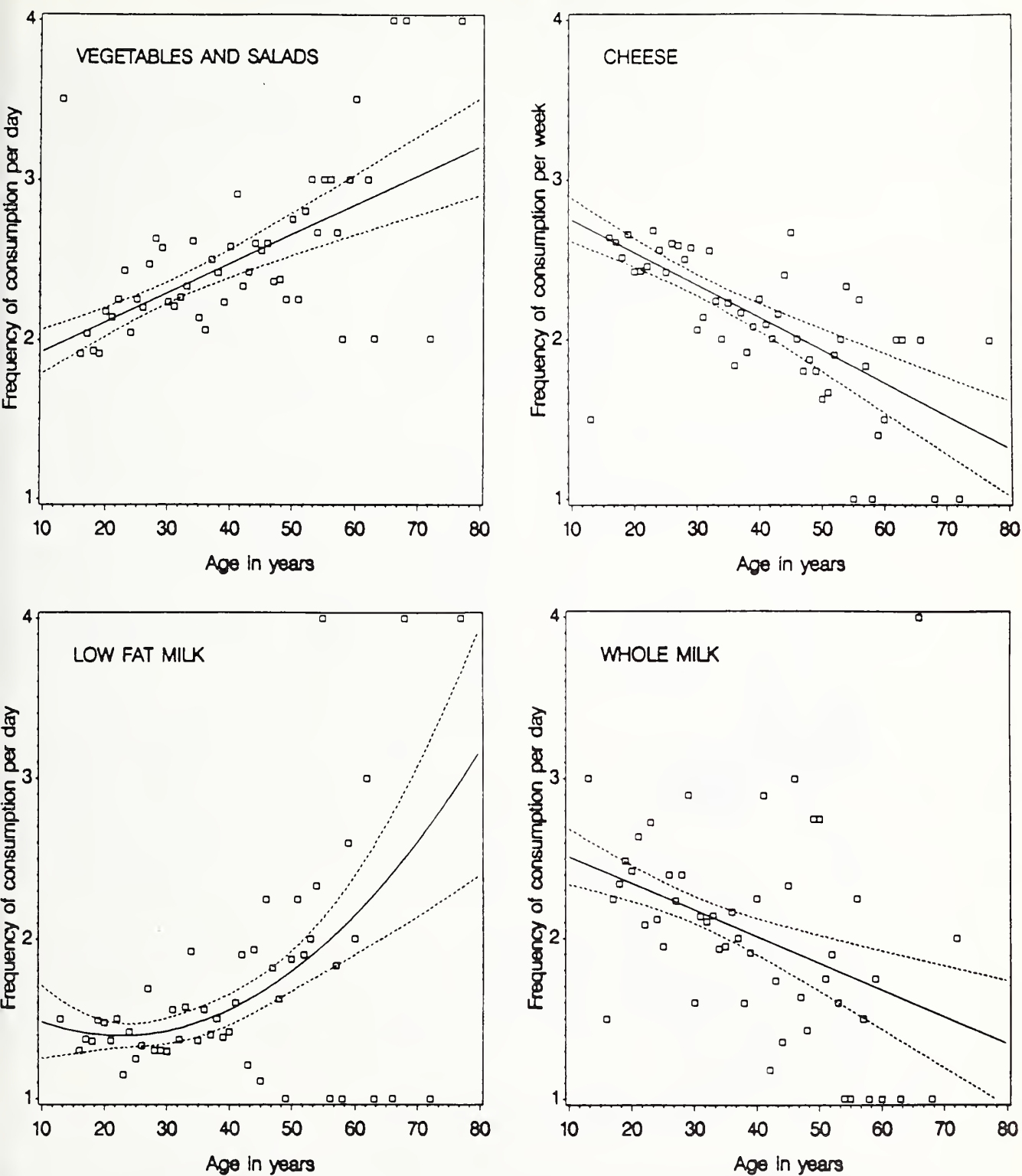


Figure 2. Regressions of frequency of consumption on age with 95% confidence band.

## EFFECT OF RACE

Because of the few participants of other races, racial comparisons only included African Americans and Caucasians. African Americans chose pork, poultry (including fried chicken), fried fish and whole milk significantly more frequently than Caucasians ( $p < 0.05$ ). They also chose bread significantly more often. Caucasians chose cheese and low fat milk significantly more often than African Americans did ( $p < 0.05$ ). These data are quite similar to those reported for the elderly population in Georgia.<sup>11</sup>

## CONCLUSIONS

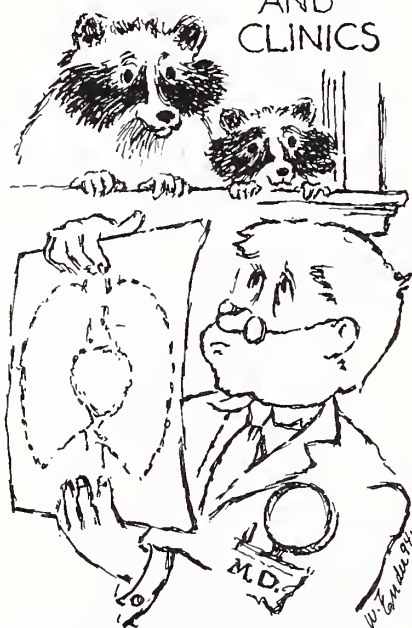
Based on the present data, many Arkansans enrolled in GED and ABE Programs do not appear to be meeting current nutritional recommendations, although some improvement was seen with advancing age and increasing income. These data indicate that this population of Arkansans eats similarly to other Americans and that there is clearly a need for nutrition education and for improvement in food choices consistent with the Healthy Arkansans 2000 Nutrition Objectives.<sup>2</sup> Further research is needed to confirm the changes seen in food choices with aging and

the underlying causes for this shift. An understanding of the motivating factors can then influence nutrition education strategies.

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# WHAT DOES ORGANIZED MEDICINE IN ARKANSAS STAND FOR?

*The media would lead you to believe that physicians are against all health care reform proposals. To the contrary, Arkansas physicians are very specific about what is necessary to improve the health care delivery system.*

*The Arkansas Medical Society is certainly vocal in its opposition to aggressive government intervention at all levels . . . professional liability, third party payors, HCFA, Medicare, Medicaid, allied health professionals . . . the list is seemingly endless. However, there are certain components that we believe should be included in any health reform legislation to ensure continuation of quality care and to protect the doctor-patient relationship.*

*The components of effective health care reform that the AMS espouses have been hand delivered by your Society leaders and personally discussed with our entire Washington Congressional delegation.*

*Now that extensive national legislation appears to be uncertain, the emphasis has shifted to the state level. The following is a reprint of the correspondence and position paper that has been forwarded to the Governor and state legislators by AMS President James M. Kolb Jr., M.D.*

The Honorable Jim Guy Tucker  
Governor  
State of Arkansas  
State Capitol  
Little Rock, AR 72201

Dear Governor Tucker:

The Arkansas Medical Society (AMS) has representation on both the Governor's Health Care Task Force and the legislatively created Health Resources Commission. We appreciate the opportunity to participate in the dialogue regarding health system reform and the future implications on health care in Arkansas.

The AMS, however, is concerned that the committees' composition will result in unbalanced votes for various recommendations that do not accurately reflect the positions of organized medicine in Arkansas.

In order to avoid any misunderstanding, the AMS would like to present to you (with copies to the General Assembly) the components that we think must be included in any legislative proposals regarding health system reform. These components are essential for quality patient care and to protect the physician-patient relationship.

We share your concern for the health care needs of all Arkansans and look forward to a continuing, close working relationship.

Respectfully yours,

James M. Kolb Jr., M.D.  
President

## PATIENT/PHYSICIAN COMPONENTS FOR EFFECTIVE HEALTH CARE REFORM

### UNIVERSAL COVERAGE

Health care coverage should be extended to all Arkansans. We support a variety of approaches to achieve this goal: an employer mandate, an individual mandate and medical savings accounts. As the legislative debate unfolds, flexibility will be needed in determining the

relative responsibilities of individuals, employers, and government to ensure universal coverage with at least a minimum standard set of health care benefits for all Arkansans.

### INSURANCE MARKET REFORM

To ensure that insurance carriers can no longer deny coverage to individuals with chronic or other medical problems, or refuse to renew such coverage, legislation should require the elimination of preexisting condition limitations and other reforms ensuring insurance portability.

### FREEDOM OF CHOICE

Currently too many individuals have only limited choice of health plans offered by their employers and their access to physicians under these plans is often restricted. In a reformed system, the *individual* - not the employer should have the right to select from all qualified health plans in their area, including fee-for-service, HMO, PPO, and benefit payment schedule plans. This will ensure that individuals are able to choose both their physician and their preferred method of paying for health care.

Physicians should have the right to apply to any health plan or network and to have that application approved if it meets physician-developed objective criteria that are available to both applicants and enrollees and are based on professional qualification, competence and quality of care.

Managed care plans and medical delivery systems must include practicing physician involvement in their health care delivery policies similar to those of self-governing medical staffs in hospitals.

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*. . . Physicians should have the right to apply to any health plan or network . . .*

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Physicians participating in these plans (and no physicians should be arbitrarily excluded) must be able, without threat of punitive action, to comment on and present their positions on the plan's policies and procedures for medical review, quality assurance, grievance procedures, credentialing criteria, and other financial and administrative matters, including practicing physician representation on the governing board and key committees of the plan.

## PATIENT PROTECTIONS

The complexity of health insurance programs has overwhelmed the patients and providers. Contractual language is confusing, and patients are often surprised by what is not covered or the bureaucratic entanglements necessary to get treatment or payment approved.

Legislation should be considered that would require all health benefit plans

to provide the following information to their insureds:

- ° A list of covered services - what the plan pays for.
- ° A list of exclusions - what they would have to pay for themselves.
- ° Directions on whom to call before a physician can treat them.
- ° Disclosure of financial incentives for the health care providers to withhold or limit medical services, and restrict referrals to specialists.

## QUALITY OF CARE

The quality of health care in Arkansas is equal to that found anywhere in our nation. To ensure this continued level of excellence, physicians and their professional organizations should continue to control the standards for quality care delivered to patients. Such standards will help to assure that only appropriate medical services are provided, thus impacting favorably on the quality and cost of medical care.

---

*. . . The complexity of health insurance programs has overwhelmed the patients . . .*

---

As exemplified by the cooperation between the business and medical communities on the successful resolution of workers' compensation issues, we recommend a public/private partnership to enhance and maintain quality, rather than creating any new state bureaucracy.

Legislative proposals should include:

- ° A defined role for organized medicine and practicing physicians on any state public or quasi-public body dealing with quality issues;
- ° A provision for input by the medical profession in the development, implementation, and evaluation of quality management programs.

---

*. . . We recommend a public/private partnership to enhance and maintain quality, rather than creating any new state bureaucracy . . .*

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## PHYSICIAN INVOLVEMENT - ANTITRUST EXEMPTIONS

Today's health care marketplace is increasingly characterized by corporate, and often for-profit, organizations and large managed care plans that are taking aggressive action to control the delivery of health care services and reduce their costs. While efforts to save costs are appropriate and desirable, excessive concern for costs can interfere with the availability and delivery of health services to patients and diminish the quality of those services.

If physicians are going to be successful advocates for their patients in ensuring access to high quality, affordable health care, they must have a strong voice on issues relating to the delivery of and payment for care to balance the ever-increasing corporate domination of health care.

Under the current federal antitrust laws, however, physicians who engage in negotiations are threatened with criminal prosecution or costly civil litigation. This state of affairs is simply unacceptable as a matter



of health care policy and fundamental fairness.

To correct this situation and to foster meaningful reform whereby treatment decisions are made on the basis of what is best for the patient - *not what is best for the corporate bottom line* - the General Assembly should consider legislation that facilitates the formation of physician sponsored/direct health care delivery networks and health plans. This legislation should authorize physicians to form these entities and provide antitrust exemptions from regulations that interfere with this activity. This protection could be achieved by the passage of a "state action immunity doctrine."

## LIABILITY REFORM

Defensive medicine, the ordering of tests and procedures which might not be ordered were it not for liability concerns, drives up health care costs. Liability insurance premiums and defensive medicine activities add significantly to the average physician's bill for services. These unnecessary costs are passed on to patients and contribute to rising health care spending.

Major liability reforms must be enacted to control these costs. Experience in other states has proven that such reforms significantly reduce a physician's liability insurance premiums.

---

*... Liability insurance premiums and defensive medicine activities add significantly to the average physician's bill for services ...*

---

Reform Legislation should include:

- A \$250,000 cap on noneconomic damages;
- Mandatory periodic payment of future elements of damages;
- A mandatory offset of collateral sources, such as health insurance and disability benefits, when computing compensation to prevent double recovery of damages;
- A sliding scale limit on attorneys' fees in relation to the size of the award;
- A statute of limitations, applicable to adults and minors, to limit the time period for filing claims;
- A certificate of merit as a prelude to filing medical liability cases and adopting basic criteria for medical expert witnesses;
- Encouragement of patient safety issues as an integral component of outcome and quality assessment programs; and
- Providers following clinically relevant practice parameters developed by professional associations should be allowed to raise such compliance as an affirmative defense in liability actions.

## SCOPE OF PRACTICE

The Arkansas Medical Society supports appropriate collaboration among physicians and other health professionals within the scope of their education and training to achieve the best results of patient care. Determinations of "appropriate" collaboration should be mutually developed through interdisciplinary discussions.

## SIMPLIFYING THE SYSTEM

The current health care system is fragmented, costly, complicated and characterized by duplicative and confusing paperwork and government regulations. To allow more time for patient care activities - and to improve access and help contain health care costs - administrative simplification must be a core element of any health system reform initiative.

---

*... To allow more time for patient care activities . . . administrative simplification must be a core element . . .*

---

Recommended administrative changes for both private and public programs include:

- Reduce the complicated paperwork nightmare faced by patients and their families by requiring that all insurers and the government use a simple, uniform claim form;
- Provide incentives to encourage physicians and other providers to file benefit claims on behalf of their patients;
- Standardize and disclose utilization review criteria to patients and physicians;
- Reduce the regulatory and costly burden of unnecessary government programs; and
- Carefully monitor the cost associated with prior approval and precertification requirements.

# Epilepsy and Pregnancy: Mother and Child

Gregory B. Sharp, M.D.\*

A mother's pregnancy is perhaps the most important time in her and her baby's lives. Epileptic seizures during pregnancy and antiepileptic drugs (AED's) can have significant impact on both mother and child. Approximately one out of every 200 pregnant women have epilepsy.<sup>1</sup> Significant potential complications related to seizures and AED's qualify the pregnancy as one with "high risk," but risks are lower than those associated with pregnancies complicated by other medical diseases such as diabetes mellitus. The pregnancy should be entered into with appropriate caution, understanding and expectations.

Consideration should be given to numerous problems that may arise during the pregnancy, labor and delivery. Seizure frequency may increase during pregnancy. Alterations in AED metabolism and serum concentration may compromise seizure control. Seizures may pose direct and indirect danger to mother and child. Generalized convulsive seizures and especially status epilepticus may directly increase maternal and/or fetal morbidity and mortality. Injuries from falls, especially with generalized convulsive seizures, may result in trauma to the mother, induction of labor, abruptio placenta or other complications. Indirect injury can occur secondary to complex partial or generalized seizures via resultant automobile or other accidents. AED's are also associated with some teratogenic potential. Maternal seizures during labor and delivery may lead to grave consequences.

It is the medical care provider's responsibility to understand the risks associated with epilepsy and pregnancy and to appropriately inform the woman of child bearing age about those risks long before, as well as during pregnancy.

## Impact of Pregnancy on Epilepsy: Seizure Control and AED's

The impact of pregnancy on seizure frequency in the epileptic mother is variable. Approximately one-third to one-half of women with epilepsy will have an increase in seizure frequency during pregnancy. About one-half will not experience a change in the frequency of seizures, and a few will actually have a decrease in seizures. Seizure type, age of seizure onset, previous pattern of seizures, response to AED's or seizure frequency during previous pregnancies are not predictable indicators as to how the pregnancy will effect seizure frequency. A pre-existing history of medically intractable seizures is probably the best predictor of poor control during pregnancy as well. The occurrence or change in frequency of seizures related to the time during gestation also varies. Overall, the effect on seizure frequency and severity during pregnancy is variable and unpredictable.<sup>2-12</sup>

Several factors may effect seizure control during pregnancy. One of the most significant is a decrease in compliance with medications. Expectant mothers are commonly concerned about risks associated with AED's and potential effects on the fetus. They may have a tendency to reduce the AED dosage with the hope of minimizing these risks. Increased anxiety and sleep deprivation during pregnancy also provide a negative impact on seizure control.<sup>6,9,10,13</sup> In a prospective study of 136 pregnancies in 122 women with epilepsy, an increase in seizure frequency was seen in 37% of the pregnancies. In 68% of the women with increased seizures, AED noncompliance or sleep deprivation was documented. Subtherapeutic AED levels were present in 47% of those with uncontrolled seizures. The adverse was also realized, in that 39% of women who experienced improved seizure control actually reported improvement in AED compliance or correction of sleep deprivation.<sup>9</sup>

\* Gregory B. Sharp, M.D., is Assistant Professor of Pediatrics & Neurology at the University of Arkansas for Medical Sciences and Co-Medical Director, Arkansas Comprehensive Epilepsy Program (ACEP).





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Alterations in AED metabolism and a decline in serum concentrations during pregnancy may have a significant impact on seizure control. The increase in body weight, plasma volume and the volume of distribution of the mother results in a dilutional effect and a reduction in AED serum levels. Plasma volume may increase by as much as 50% by the third trimester.<sup>10</sup> A decrease in intestinal absorption of AED's may rarely play a role in serum concentration reduction.<sup>10,14</sup> An increase in hepatic blood flow and hepatic metabolism results in lower serum concentrations of AED's.<sup>15-19</sup> Renal blood flow and renal clearance of AED's also increase during pregnancy. Renal blood flow and glomerular filtration ultimately increase by 80% and 50% respectively.<sup>20</sup>

Changes in protein binding due to a decrease in serum albumin and total protein produce the most significant alteration in AED serum concentrations. The resultant decrease in protein binding of AED's effectively decreases serum levels.<sup>10</sup> Some inhibition of protein binding may also occur. Free (unbound) drug levels are therefore increased. It is the free component that is available for metabolism and clearance, thus resulting in lower total serum concentrations. It is also noted that the free drug is the component that is available to cross the blood-brain barrier and thus provide seizure prophylaxis, which may be enhanced with higher free concentrations, despite lower total AED levels.<sup>10,12,13,21,22</sup> This is most significant with highly protein bound drugs such as phenytoin and sodium valproate that are both approximately 90% protein bound. The total serum concentrations will decrease prominently. The free phenytoin level may increase 10-20% by the end of pregnancy.<sup>24,25</sup> Phenobarbital and primidone are moderately protein bound, and significant serum concentration changes may occur in some patients.<sup>26,27</sup> Carbamazepine levels may be altered but are typically not decreased significantly.<sup>10,21,26</sup> Although total and free concentrations of carbamazepine may not change much, the metabolite carbamazepine 10, 11-epoxide level may increase significantly and may result in potential toxicity.<sup>10</sup>

Monitoring AED serum concentrations and adjusting the dosage appropriately during pregnancy is important, especially when maintaining seizure control is difficult. It is commonly indicated to monitor free serum AED levels, especially of phenytoin and valproic acid.

### **Impact of Epilepsy on Pregnancy: Complications and Outcomes**

There have been numerous and at times somewhat conflicting reports concerning obstetrical complications and outcome in pregnant women with epilepsy. The incidence of vaginal bleeding may be increased.<sup>11,28</sup> Anemia may occur twice as often.<sup>11,29</sup> Hyperemesis gravidarum may occur more fre-

quently.<sup>11,15,28</sup> This may result in lower AED serum concentrations and decreased seizure control. Preeclampsia is sometimes more common.<sup>11,15,28,30</sup> Premature labor and delivery may occur more commonly. The reported risk for prematurity is 4-11%.<sup>1,10-12,15,28,31-33</sup> A tendency for lower APGAR scores has been reported.<sup>11,12,15,32,33</sup> The infants are 2.8 times more likely to have a low birth weight.<sup>11,12</sup> Stillbirth and infant mortality rates are increased two-fold.<sup>5,10,11,15,28,33-36</sup>

Some studies have indicated more promising obstetrical outcomes among women with epilepsy. Annegers et al. compared the incidence of spontaneous abortions with epileptic mothers vs. epileptic fathers vs. the general population and found no significant difference.<sup>37</sup> A prospective study of 150 pregnancies in 139 epileptic women that produced 152 babies, matched to 150 pregnancies in non-epileptic women did not reveal a significant increase in complications in the epileptic population, including hemorrhage, preeclampsia, abruptio placenta, premature delivery and spontaneous abortion. A significant increase in the frequency of fetal malformations was also not observed.<sup>38</sup> More stringent prenatal obstetrical and neurological care is indicated during the pregnancy of a woman with epilepsy and results in a better outcome for mother and child.

The risk to the mother and fetus produced by a maternal seizure rises with the increase in duration of the seizure. Generalized convulsions in the mother increases the incidence of fetal death, hypoxic-ischemic encephalopathy, microcephaly and mental retardation in the child. Partial seizures typically do not have a direct effect on the fetus unless secondary injury results from accidents, falls, etc. Generalized convulsive status epilepticus poses the greatest danger. Prior to the advent of effective AED's, status epilepticus was usually fatal for mother and child.<sup>5</sup> Prolonged status epilepticus during pregnancy produces maternal and fetal cyanosis and acidosis and may result in decreased fetal heart rate, intracerebral hemorrhage, hypoxic-ischemic cerebral injury and death.<sup>39-43</sup> Maternal and fetal mortality and morbidity rates remain very high. Status epilepticus during pregnancy is an obvious medical emergency and requires prompt treatment.

### **Treatment of Epilepsy Before and During Pregnancy**

The best treatment of the woman of child bearing age begins long before she is pregnant. It is the medical care provider's responsibility to inform her of the potential risks for herself and her child should she become pregnant. The prospective father should likewise be informed. Birth control education and provisions should also be offered if desired. Oral contraceptives are not contraindicated in women with epilepsy, and they are not felt to produce an increase in seizures. It is important to note that AED's commonly induce hepatic metabolism and may inhibit the effec-



tiveness of the oral contraceptive. Increased estrogen dosages may be required in some women. Alternative methods of birth control may need to be provided.<sup>44</sup>

If possible, the pregnancy should be planned. The diagnosis of epilepsy and the need for AED's should be confirmed. If the patient has established a long seizure-free period, it may be appropriate to discontinue AED's prior to her becoming pregnant. Changes in AED's and dosages may be appropriate prior to becoming pregnant. If the patient is receiving two or more AED's, perhaps a trial of monotherapy may be warranted. Higher dosages may likewise be decreased. Polytherapy and high AED serum concentrations may be more likely to have teratogenic potential. Discontinuation of, or changes in AED therapy should be done in advance of the pregnancy to insure a subsequent seizure-free period prior to becoming pregnant, realizing that there is no guarantee that seizures will not recur during pregnancy. If the patient is still at significant risk for having seizures, medication should be continued or unaltered in most cases. Significant risks of seizures and especially status epilepticus during pregnancy, far outweigh the risks associated with AED's.

After the woman is pregnant, discontinuation of AED's will not decrease the teratogenic risks. Most major defects occur early during embryonic development. For example, the neural tube closes at 27 days of gestation. Discontinuation of the AED after the woman realizes that she is pregnant is typically too late to be of benefit. Stopping medication may result in increased seizures that are much more likely to produce harm. It is important for the patient to understand these concepts.

Close neurological and high risk obstetrical follow-up should be provided during the pregnancy. Quality prenatal care is an absolute necessity. Prenatal vitamins are an essential and specifically provide folic acid which may be helpful in preventing AED associated teratogenesis. Appropriately timed prenatal ultrasound examination should be performed to screen for neural tube and cardiac defects and other malformations. Amniocentesis may be indicated with specific circumstances. The AED serum levels should be monitored at least once per trimester and in response to an increase in seizure frequency. Free AED concentrations should be checked with highly protein bound AED's (phenytoin and valproic acid). An increase in AED dosage should primarily be made in response to an increase in seizures. Complete seizure control should be maintained if possible.<sup>10,11,44-46</sup>

### AED's During Pregnancy

As previously noted, changes in body weight and plasma volume, increased hepatic blood flow and metabolism, increased renal blood flow and clearance, and especially a decrease in protein binding, all result in lower serum levels of AED's during pregnancy.

The serum concentrations should be monitored appropriately during pregnancy and indicated adjustments in AED dosage should be made. All major AED's and metabolites cross the placental barrier. The fetal AED serum concentration is approximately equal to the maternal AED serum concentration.

**Phenytoin:** Plasma phenytoin concentrations may decrease 30-50%, but free levels increase 10-20% as pregnancy progresses. The serum elimination half-life may decrease by as much as 50%. Free levels should be monitored.<sup>23</sup>

**Carbamazepine:** Changes in the total serum level of carbamazepine are variable. There is no significant change in free levels. The carbamazepine 10, 11-epoxide level may increase, and clear may increase, especially near the end of pregnancy.<sup>10,21,26</sup>

**Na Valproate:** Serum levels of valproic acid decrease significantly as pregnancy progress with the lowest levels during the third trimester. Clearance increases two to three times by the end of pregnancy. The free fraction increases and may double by the end of pregnancy. Free levels should be monitored.<sup>19,21,24,25</sup>

**Phenobarbital:** The change in phenobarbital levels during pregnancy is variable. In some women, the level may decrease 30-40%.<sup>16,21,26,27,47,48</sup>

**Primidone:** Primidone is metabolized to phenobarbital and phenylethylmalonamide (PEMA). During pregnancy, the conversion to phenobarbital may be decreased. The level may decrease variably.<sup>21,26,27,47,49</sup>

**Ethosuximide:** The change in levels of ethosuximide during pregnancy is variable but minimal. It basically is not protein bound.<sup>50</sup>

### Treatment of Status Epilepticus During Pregnancy

The treatment of status epilepticus at any time, and even more so during pregnancy, is a medical emergency, and therapy should be provided promptly and efficiently. Prolonged convulsions pose a grave risk for both mother and child. The protocol in Table 1 can be followed.<sup>39,51-53</sup>

### Neonatal Complications and Considerations

Infants exposed to AED's in utero may experience drug withdrawal after birth, especially after exposure to barbiturates or benzodiazepines. This typically occurs at a few days of age. Signs and symptoms may include lethargy, poor feeding, irritability, jitteriness and seizures. Withdrawal rarely produces a serious problem.

A unique neonatal hemorrhagic disorder associated with exposure to AED's in utero may occur. The bleeding occurs within the first 24 hours following birth. This is resultant of induction of fetal hepatic metabolism by AED's and a decrease in levels of vitamin K dependent clotting factors. All newborns should receive vitamin K at a dosage of 1mg/kg intramuscularly. Repeat doses of vitamin K should be given

**Table 1:**  
**Treatment of Status Epilepticus During Pregnancy**

Establish IV access
Provide oxygenation, be prepared for intubation
Monitor electrocardiogram and blood pressure
Monitor fetal heart rate
Obtain labs:
Toxicology screen
AED levels
Glucose
Electrolytes, Mg, Ca
Arterial blood gas
EEG monitoring if possible (especially for refractory status epilepticus)
D50W 50cc IV
Thiamine 100mg IM
Diazepam IV, not to exceed 2 mg/min. or maximum of 10-20mg (can be given rectally if an IV can not be established), or
Lorazepam IV, not to exceed 2 mg/min or maximum of 7-10mg
Phenytoin load with 18mg/kg IV, not to exceed 50mg/min (give with normal saline)
If seizure has not stopped, INTUBATE
Phenobarbital load with 10-20mg/kg IV, not to exceed 100mg/min or
Diazepam drip 4-8mg/hr IV (100mg in 500cc D5W at 20-40cc/hr)
If seizure persists:
Lidocaine 50-100mg IV, if seizure stops, start drip at 1-2mg/min
Consider additional phenobarbital 5mg/kg boluses or
General anesthesia (halothane) with neuromuscular blockade (with EEG monitoring)

if bleeding occurs, or fresh frozen plasma can be given if necessary.<sup>10,11,30,33,48,54,55</sup>

The safety of breast feeding by the epileptic mother who is taking AED's is somewhat controversial. It is felt to generally be safe but may be sedating to the infant. AED's do not bind to protein in breast milk. Unbound or free drug passes freely into breast milk. The AED concentration in breast milk is approximately equivalent to the mother's free serum concentration. Highly protein bound drugs (phenytoin, valproic acid) are associated with low breast milk levels. Primidone and ethosuximide on the other hand are minimally protein bound and relatively high levels are excreted in breast milk.<sup>10,11,44,45,56</sup>

### Teratogenicity of AED's

Many early reports concerning in utero exposure to AED's indicated an alarming risk of potential teratogenicity. Most of these studies were subject to bias, based on case reports or on small numbers of patients and performed without controls. Although ter-

atogenic risks are recognized to be associated with AED's, they aren't as extreme as once believed. Major congenital malformations are noted in about 3% of births in the general population. The risk is approximately doubled in infants exposed to AED's in utero with an incidence of about 6-7%.<sup>23,34,35,57</sup> The most frequently reported congenital defects associated with AED exposure are orofacial clefts and congenital heart lesions.<sup>23,37,58</sup> Higher malformation rates have been noted in infants born to epileptic mothers that were treated compared to those that were not treated with AED's during pregnancy.<sup>23,34,35,59-61</sup> Greater malformation rates are associated with fetal exposure to higher AED levels<sup>62</sup> and AED polytherapy.<sup>59,63</sup> Higher malformation rates are not seen in association with maternal seizures during pregnancy.<sup>34,35</sup> There is some teratogenic risk associated with all AED's. Trimethadione, an AED that is still available although rarely used, is the most potent teratogen and has produced extremely high rates of stillbirth and malformation.<sup>64</sup> Some congenital abnormalities are believed to be associated with a secondary folic acid deficiency. Many AED's are folic acid antagonists. Low maternal folic acid levels during pregnancy have been documented in epileptic mothers and associated with an increased risk of fetal malformations.<sup>10,62,65</sup>

A constellation of suspected abnormalities related to in utero exposure to AED's have now been attributed to the "fetal anticonvulsant syndrome." The "fetal hydantoin syndrome" was first described. Associated described characteristics included microcephaly, growth retardation, mental deficiency, cardiac defects, cleft lip and palate, hypertelorism, strabismus, ptosis, epicanthal folds, distal digit hypoplasia, hypotonia, inguinal hernia, umbilical hernia and club foot deformity.<sup>57,66-80</sup> More recent controlled studies have documented that the only significantly associated abnormalities related to exposure in utero are hypertelorism and digital hypoplasia.<sup>72,73,75</sup> Similar features have also been described in the "fetal valproate syndrome" and in association with fetal exposure to carbamazepine and primidone. A "fetal anticonvulsant syndrome," typically with associated minor abnormalities, probably does exist in association with all AED's, but not more commonly related to any particular agent. A genetic predisposition may exist in some circumstances. The risk is greater with increased AED levels and exposure to polytherapy. The overall risk may be about 5-10%.<sup>81-93</sup>

An increased risk of cleft lip and/or palate is documented with in utero AED exposure, but there may also be a genetic predisposition that is potentiated by AED's.<sup>74,94</sup> The incidence of congenital heart defects related to AED exposure has probably been over-reported. Friis and Hauge studied 2,461 children with about one-half of those being born to an epileptic mother and one-half to an epileptic father. The incidence of congenital heart defects in both groups was



similar to that of the general population.<sup>95</sup> The incidence of spina bifida has been recognized to be higher following in utero exposure to valproic acid with a rate between 1-2%, compared to 0.1% with exposure to other AED's, and 0.06% for the general population.<sup>90,96-98</sup>

### In Utero AED Exposure and Mental Deficiency

The possible association between in utero exposure to AED's and decreased cognitive and mental functioning has also been implicated. It is very difficult to separate the roles of genetic predisposition, exposure to seizures in utero, environmental factors and AED exposure, as to how each have effected cognitive development. Gaily et al. compared 148 children born to epileptic mothers of which 134 had been exposed to AED's in utero, to 105 controls at the age of five years in a blinded study. The children in the study group did have some increase in neuropsychological risks. The study group had an average IQ of 110 compared to 114 for the control group. Deficiencies in intelligence appeared to be more genetically predetermined, and maternal seizures during pregnancy were associated with an increased risk of more specific cognitive dysfunction.<sup>99,100</sup> Exposure to higher AED serum levels and polytherapy may carry a more significant impact.

### Summary and Conclusions

Pregnancy in women that have epilepsy is not contraindicated. Definite associated risks do exist but are not as great as once believed. The woman of child bearing age with epilepsy should be educated and informed about the risk of increased seizures and the complications associated with the pregnancy and AED's. Seizure frequency may increase in one-third to one-half of women during pregnancy. AED serum levels decrease during pregnancy and may have a negative impact on seizure control. The risks for mother and child produced by generalized convulsions and especially status epilepticus far outweigh the potential risks associated with AED's. Prenatal obstetrical and neurological care during pregnancies of women with epilepsy is mandatory and can result in an improved outcome. All AED's do have some teratogenic potential, but this is much less than previously described. An understanding of the risks associated with epilepsy and pregnancy and appropriate therapy will result in a better outcome for both mother and child.

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**CHARLES L. SECREST, M.D.**

Dr. Secrest received his B.A. degree from the University of Mississippi, and earned his medical degree from the University of Mississippi School of Medicine. He completed his internship and residency in General Surgery at Baylor University Medical Center in Dallas, Texas; served a residency in Urology at the University Medical Center in Jackson, Mississippi; and a fellowship in Adult and Pediatric Reconstructive Urology at Eastern Virginia graduate school of Medicine in Norfolk, Virginia.



**JAMES E. KEETON, M.D.**

Dr. Keeton received his B.A. degree from the University of Mississippi and his medical degree from the University of Mississippi School of Medicine. He completed his internship and urology residency at University Medical Center, in Jackson, Mississippi. Dr. Keeton served a fellowship in Pediatric Urology (*Senior Registrar*) at the Hospital for Sick Children in London, England; and a fellowship in Urology (*Clinical Assistant*) at the Middlesex Hospital in London.

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## Cardiology Commentary and Update

Brent Robinson, M.D.\*  
Stephanie Lawhorn, M.D.\*  
H. Gareth Tobler, M.D.\*\*  
J. David Talley, M.D.\*

### ATRIAL MYXOMA

#### INTRODUCTION

Primary tumors of the heart are rare, ranging in incidence from 0.0017 to 0.28% in autopsy series.<sup>1</sup> Cardiac myxomas are the most common accounting for 30 to 50% in most pathological series.<sup>2</sup>

#### PATIENT REPORT

A 41-year-old female presented with several months of symptoms compatible with progressive congestive heart failure. She was unable to lie supine for the preceding two weeks. Echocardiography demonstrated a 40mm left atrial mass prolapsing into the left ventricle during diastole (Figure 1). At surgery, a friable mass typical of a myxoma was attached to the left atrial free wall adjacent to the mitral valve. It was attached by a 3mm pedicle overlying the coronary sinus. It was excised with a rim of atrial tissue and the roof of the sinus was repaired with a Gortex patch. The atrial wall was primarily closed. Pathology was consistent with a myxoma. There were no post-operative complications and she was discharged home on the fifth hospital day.

#### DISCUSSION

Goldberg, in 1952, was the first to report the pre-mortem diagnosis of an atrial myxoma.<sup>3</sup> While myxomas may involve any chamber of the heart, the left atrium is most frequently involved. A familial ten-

dency is noted in approximately 10%, and these are seen especially in younger patients. Myxomas, which may recur either in isolation or at multiple sites, have been reported as part of a disease complex. This "myxoma syndrome" has been termed the "NAME syndrome" (*nevi, atrial myxoma, myxoid neurofibroma, ephelides*)<sup>4</sup> or the LAMB syndrome (*lentigines, atrial myoma and blue nevi*).<sup>5</sup>

Pathologically, a myxoma resembles a degenerated thrombus. However, DNA analysis has shown that myxomas arise from embryonic cell rests which have undergone neoplastic transformation. Most myxomas are between 6-8 cm in diameter. They are pedunculated and are usually attached to the fossa ovalis by a stalk.

Cardiac myxomas can produce a broad array of symptoms and signs.<sup>6</sup> These include fever, cachexia, malaise, fatigue, weight loss, arthralgia, Raynaud's phenomenon, rash, clubbing, and changes in behavior.<sup>7</sup> A variety of nonspecific laboratory abnormalities including elevated erythrocyte sedimentation rate, thrombocytosis, anemia, leukocytosis, hypergammaglobulinemia, thrombocytopenia, and elevated interleukin 6 have been reported. A myxoma may block the tricuspid or mitral valves, causing dyspnea, orthopnea, paroxysmal nocturnal dyspnea, acute pulmonary edema, syncope and sudden death. Often these symptoms are worsened by a particular body position and are out of proportion to the clinical findings. A peculiar symptom, of gasping for breath while sitting, and not with lying is known as *platypnea*. Arterial embolism occurs in one-third of patients. A clue to diagnosis is an arterial embolism in a patient in regular rhythm. Systemic embolism is seen in all vascular distributions.

The physical examination typically shows signs

\* Drs. Robinson, Lawhorn and Talley are with the Division of Cardiology, Department of Internal Medicine, University of Arkansas for Medical Sciences.

\*\* Dr. Tobler is with the Division of Cardiovascular Thoracic Surgery, Department of Surgery, University of Arkansas for Medical Sciences.



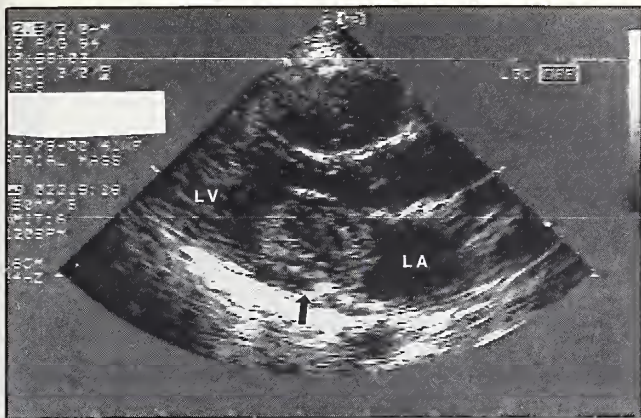


Figure 1: Parasternal long axis two-dimensional echocardiographic view of a large atrial myxoma (arrow) descending from the left atrium (LA) to the left ventricle (LV). Echocardiogram courtesy of James M. Merritt.

of congestive heart failure. A loud  $S_1$ , an apical systolic murmur, and an early diastolic sound, the *tumor plop*, are typical findings.

Diagnosis of cardiac myxomas requires a high index of suspicion and appropriate evaluation. Echocardiography is the mainstay of diagnosis. M-mode echocardiography is most useful for recognizing pedunculated tumors of the left atrium, but less sensitive for intramural and sessile tumors. Two dimensional echocardiography provides substantial advantages over M-mode echocardiography including ability to define tumor size, site of attachment and mobility. The relatively homogenous consistence of myxomas and thrombi may in-part account for decreased sensitivity of detection and specificity of diagnosis with two dimensional echocardiography.<sup>8</sup> Transesophageal echocardiography is superior to transthoracic echocardiography for identifying tumor attachment points and distinguishing left atrial thrombi from tumor.<sup>9</sup> Cross sectional imaging modalities, including computed tomography and magnetic resonance imaging (MRI), are used for delineation of cardiac masses. MRI is especially helpful in assessing the size, shape and surface characteristics of the tumor. Cardiac catheterization is only performed in patients with non-diagnostic, non-invasive tests.

Prompt surgical excision minimizes the risk of tumor related symptoms and complications. Surgical removal is performed through an atriotomy, using cardiopulmonary bypass, hypothermia and cardioplegia with care needed during manipulation of the tumor to avoid embolization. The right atrial surgical approach is a unique aspect of the technique. The "wrecking ball" effect of the myxoma may damage the associated atrio-ventricular valve and necessitate valve replacement. Careful follow-up with periodic echocardiography is necessary to detect recurrent myxomas, especially in patients who presented with other signs of the myxoma syndrome.

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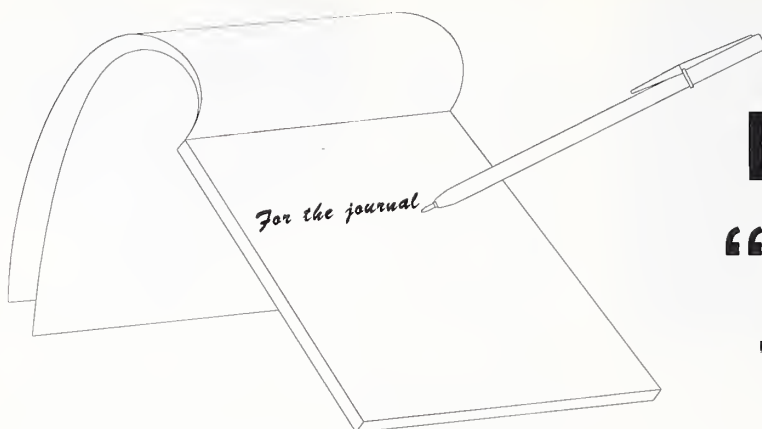
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- Enhancing the doctor-patient relationship
- Practice management for today's physicians
- Women's health issues
- Teens and drug use
- A smokeless society
- Medical ethics and health care
- What's the value of organized medicine?
- New treatments and technology
- Physicians and managed care
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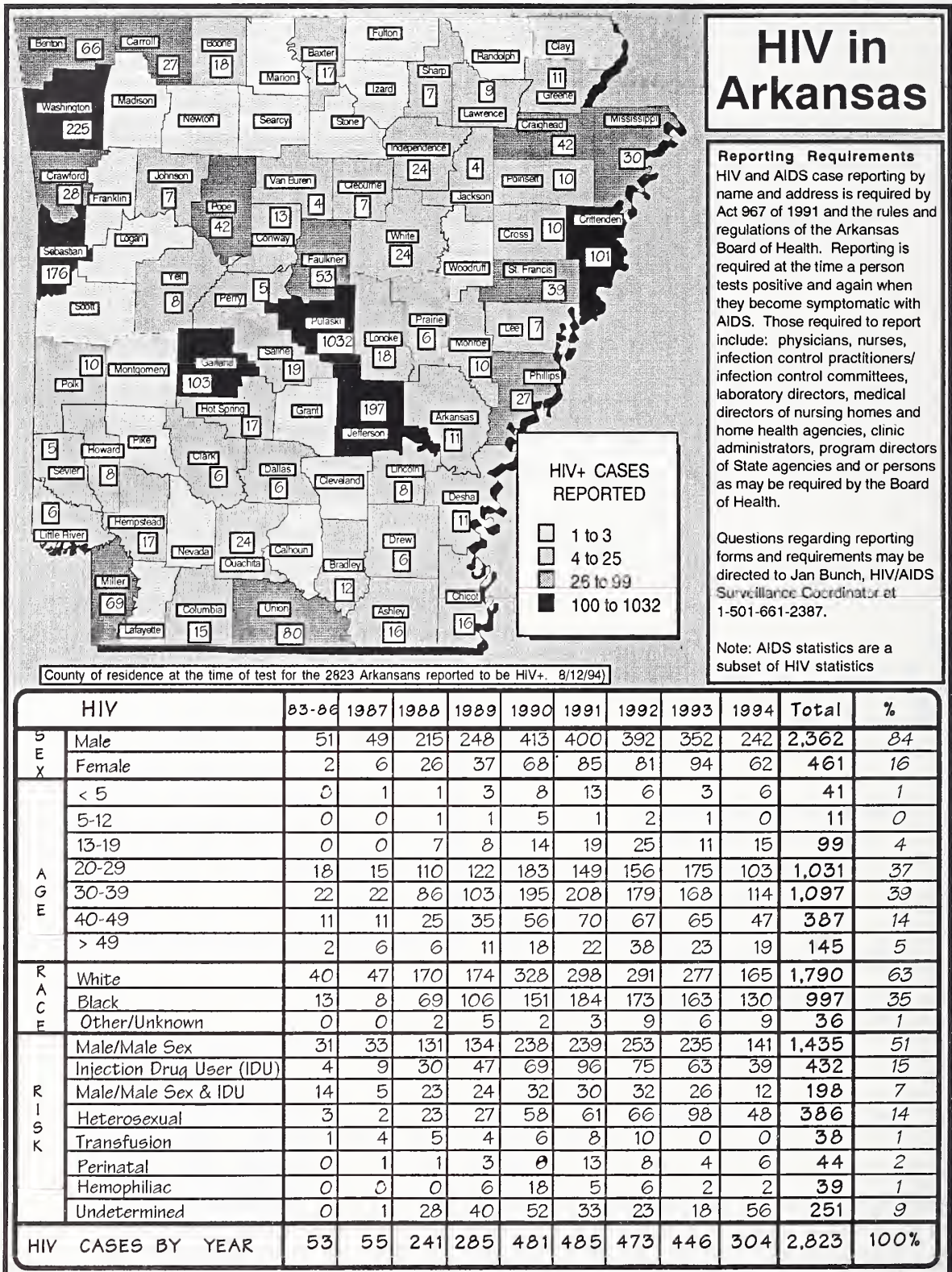
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# Arkansas HIV/AIDS Report

## 1983-1994

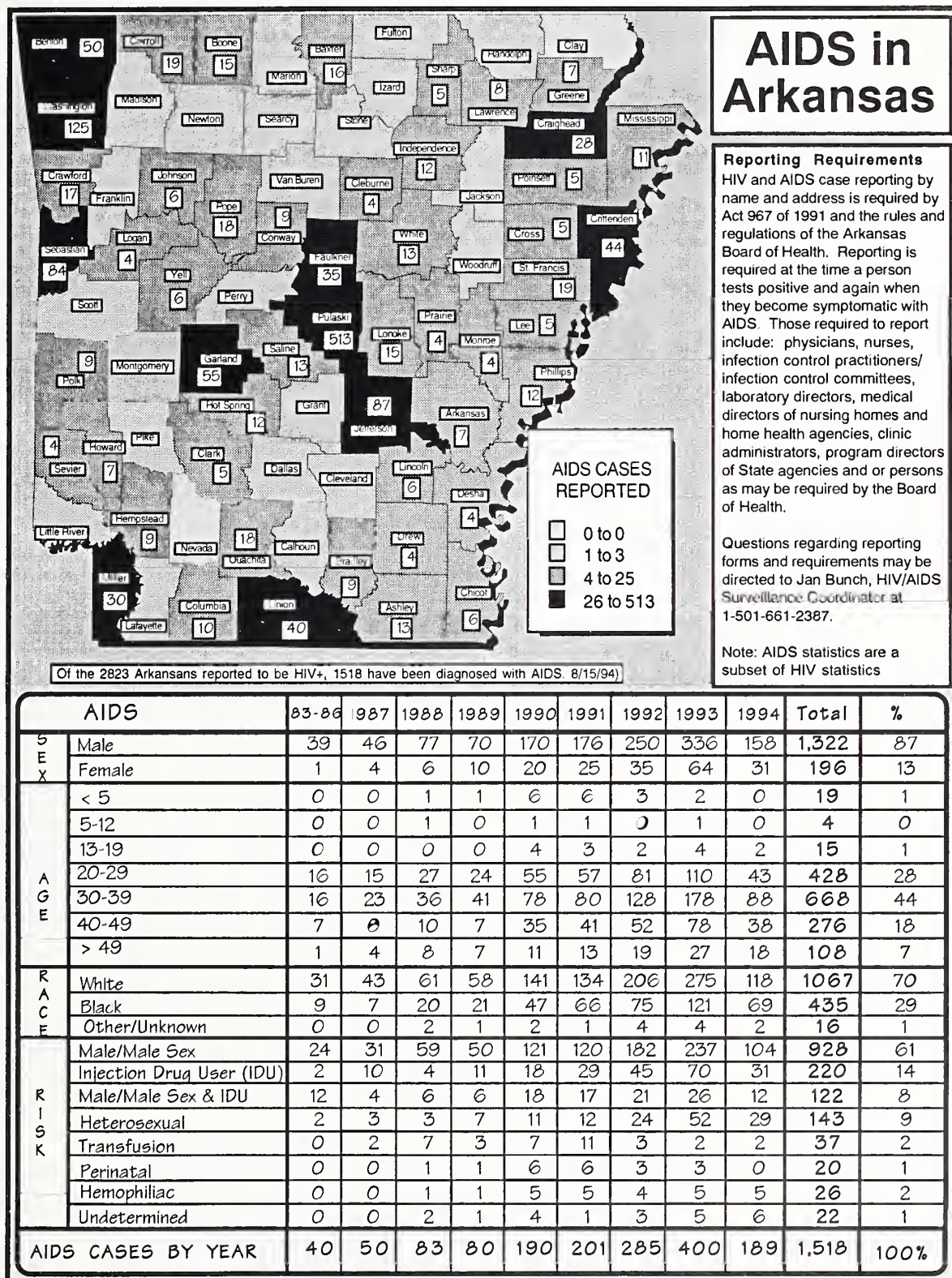


Source: AIDS Surveillance Unit, Arkansas Department of Health.



# Arkansas HIV/AIDS Report

## 1983-1994



Source: AIDS Surveillance Unit, Arkansas Department of Health.

# New Members

## BATESVILLE

**Winters, John C.**, Radiology. Medical education, Northwestern University, Chicago, 1966. Internship/Residency, Evanston Hospital, 1972. Board certified.

## FORT SMITH

**Beyer, H. Stephen**, Endocrinology/Internal Medicine. Medical education, Ohio State University College of Medicine, Columbus, 1978. Internship/Residency, University of Minnesota Hospitals, 1981. Board certified.

**Mason, Maria E.**, General Medicine. Medical education, D.R., Santo Domingo Institute of Technology, Ave Los Proceres, Santo Domingo, Dominican Republic, 1988. Internship, University of Tennessee/Healthplex, 1993.

**Schuster, Calvin L.**, General Surgery. Medical education, University of Mississippi, Jackson, 1976. Internship/Residency, San Joaquin General Hospital, Stockton, Calif., 1981.

**Wright, Timothy F.**, Orthopaedic Surgery. Medical education, University of Kansas, Wichita, 1988. Internship/Residency, University of Kansas, 1994.

## GRAVETTE

**Honderich, Jeff P.**, Family Practice. Medical education, Oklahoma State University College of Osteopathic Medicine, Tulsa, 1993. Internship, Tulsa Regional Medical Center, 1993.

## HARRISBURG

**Houchin, Vonda G.**, Family Practice. Medical education, University of Arkansas for Medical Sciences, 1991. Internship/Residency, AHEC-Northeast, Jonesboro, 1994. Board certified.

## HOT SPRINGS

**Ashcraft, Melessa E.**, Anesthesiology. Medical education, University of Arkansas for Medical Sciences. Internship/Residency, University of Arkansas for Medical Sciences, 1994.

## LITTLE ROCK

**Davidson, Kent W.**, Family Practice. Medical education, University of Arkansas for Medical Sciences, 1976. Internship/Residency, UAMS, 1979. Board certified.

**Greenwood, Denise R.**, Breast Surgery. Medical education, University of Texas Medical Branch,

Galveston, 1987. Internship/Residency, SUNY Downstate, Brooklyn, 1989; New Hanover Medical Center, Wilmington, N.C., 1990; Marshall University, Huntington, W. Va., 1992. Fellowship, UAMS, 1994.

**Hall, Gregory S.**, Emergency Medicine. Medical education, University of Texas Southwestern Medical School, Dallas, 1989. Internship/Residency, University of Mississippi Medical Center, Jackson, 1994.

**Hardin, Robert P.**, Pain Management/Anesthesiology. Medical education, University of Arkansas for Medical Sciences, 1960. Internship, St. Vincent Hospital, Little Rock, 1961. Residency, St. John Hospital, Springfield, Mo., 1965. Board certified.

**Lasher, Alayne C.**, Anesthesia. Medical education, University of Florida, Gainesville, 1990. Internship/Residency, University of Florida, 1994.

**Safman, Bruce L.**, Physical Medicine & Rehabilitation. Medical education, University of Pittsburgh, Penn., 1966. Internship, Indiana University, 1967. Residency, Albert Einstein College of Medicine, 1971. Board certified.

**Schwamchaus, John D.**, Neurology. Medical education, University of Cincinnati, Ohio, 1980. Internship, Good Samaritan Hospital, Cincinnati, 1981. Residency, Georgetown University, Washington, D.C., 1984. Board certified.

**Shumate, Linda Young**, Child & Adolescent Psychiatry. Medical education, University of Arkansas for Medical Sciences, 1989. Internship/Residency, UAMS, 1994. Board eligible.

**Starnes, Cloise W.**, Hair Transplantation. Medical education, University of Arkansas for Medical Sciences, 1965. Internship, Hillcrest Medical Center, Tulsa, Oklahoma, 1966. Residency, University of Oklahoma Medical Center, Oklahoma City, 1969.

**Whiteside-Michel, Julia**, Ophthalmology/Glaucoma. Medical education, Yale School of Medicine, New Haven, Conn., 1986. Internship, Yale New Haven Hospital, 1987. Residency, Stanford University Hospital, 1990.

**Yoo, Kevin**. Medical education, Emory University School of Medicine, Atlanta, Georgia, 1993. Internship, EVSM Affiliated Hospitals, 1994.

## NORTH LITTLE ROCK

**Giblin, John M.**, Pediatrics. Medical education, East Carolina University, Greenville, N.C., 1989. Internship/Residency, Naval Hospital, Portsmouth, Virginia, 1992. Board certified.



## OZARK

**Zabad, Hussein**, Internal Medicine. Medical education, Universidad Tecnologica de Santiago, Santo Domingo, Dominican Republic, 1987. Internship, Frankford Hospital, Philadelphia, Penn., 1991. Residency, Medical College of Pennsylvania, Philadelphia, 1994.

## PARAGOULD

**Perry, John K.**, Anesthesiology. Medical education, University of Mississippi, Jackson, 1990. Internship/Residency, University of Mississippi, Jackson, 1994. Board eligible.

## PINE BLUFF

**Agarwal, Rita**, Psychiatry. Medical education, B.R.D. Medical College, Garakhpur, India, 1981. Internship/Residency, Kingsboro Psychiatric Center, Brooklyn, New York, 1991.

**Broughton, Stephen Andre**, Psychiatry. Medical education, University of Arkansas for Medical Sciences, 1990. Internship, University of Alabama, Birmingham Medical Center, 1991. Residency, Medical College of Georgia, 1994.

**Nichols, Scott R.**, Family Practice. Medical education, University of Arkansas for Medical Sciences. Internship, UAMS. Residency, UAMS/AHEC-Pine Bluff, 1994. Board certified.

**Trice, James**, Gastroenterology. Medical education, University of Arkansas for Medical Sciences, 1989. Internship/Residency, Rush-Presbyterian St. Lukes, Chicago, 1992. Board certified.

**Woods, Jerrye A.**, Pediatrics. Medical education, University of Arkansas for Medical Sciences, 1991. Internship/Residency, UAMS, 1994.

## WEST MEMPHIS

**Ruiz, Julio P.**, Nephrology. Medical education, National University Pedro Henriquez Urena, Santo Domingo, Dominican Republic, 1985. Internship/Residency, Franklin Square Hospital, Baltimore, Maryland, 1989. Board certified.

## OUT OF STATE

**Goodman, Jack A.**, Anesthesiology. Medical education, University of Tennessee, Memphis, 1981. Internship/Residency, University of Tennessee, 1985. Board certified.

## RESIDENTS

**Barnes, James R.**, Surgery. Medical education, University of Arkansas for Medical Sciences, 1991. Internship, UAMS, 1992. Residency, UAMS.

**Farooque, Mustafa**, Psychiatry. Medical education, Dhaka Medical College, Dhaka, Bangladesh,

1983. Residency, Albert Einstein Medical Center, Philadelphia, Penn., 1994. Internship, UAMS.

**Garrison, Gregory T.**, Pediatrics. Medical education, Southern Illinois University, Springfield, 1993. Residency, UAMS.

**Gurley, Louellen Brown**, Internal Medicine. Medical education, University of South Alabama, Mobile, 1991. Internship/Residency, Carraway Methodist Medical Center, Birmingham, Ala., 1994. Fellowship, UAMS.

**Mocharla, Raman**, Diagnostic Radiology. Medical education, Indiana University School of Medicine, Indianapolis, 1993. Internship, St. Vincent's Hospital, Indianapolis and UAMS, Little Rock, 1994. Residency, UAMS.

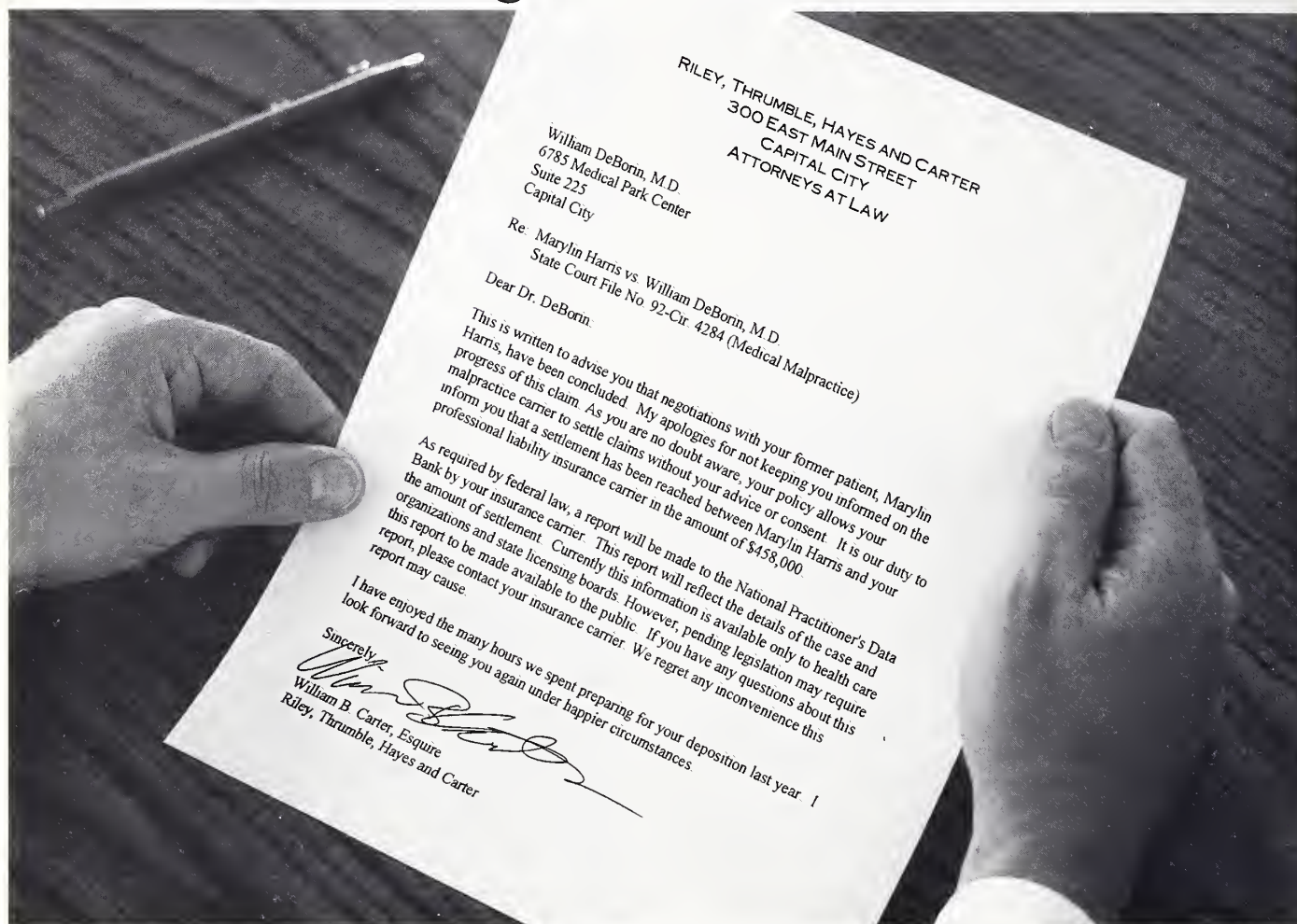
**Velasquez, Lisa A.**, Anesthesiology. Medical education, Loyola Stritch School of Medicine, Chicago, 1989. Internship, Tripler Army Medical Center, Honolulu, Hawaii, 1990. Residency, UAMS.

## STUDENTS

Stacie L. Adams  
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Jeanee M. Barnes  
Ashley S. Bean  
Kara D. Belue  
William G. Boger  
Ashley M. Brawley  
James S. Bridges  
Belinda A. Burnett  
James D. Cathey  
Jerry "Nick" N. Cavaneau  
Sylvia D. Chambers  
Holly D. Cockrum  
Kristy C. Cowherd  
Robert M. Cowherd  
Douglas C. Dannaway  
Kimberly D. Davis  
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Joel W. McMasters  
Kellie A. Morris  
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Tracey A. Schmucker  
Helen M. Simmons  
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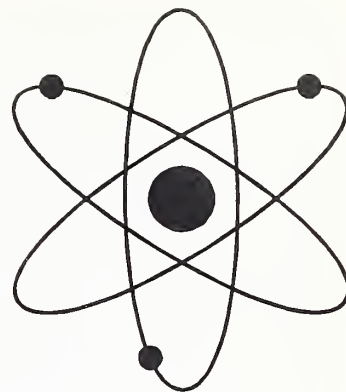
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# Radiological Case of the Month



David L. Harshfield, M.D.  
Kelly G. Grigg, B.S.

## History:

This patient is a 73-year-old male who presented with acute right upper quadrant pain three days post carotid endarterectomy. An acute abdomen series was performed.

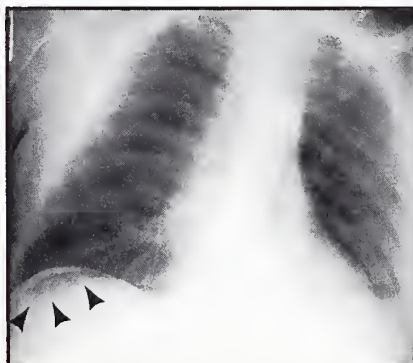


Figure 1: Above.  
Figure 2: Right top.  
Figure 3: Right.

---

# Free intraperitoneal air.

---

## Findings:

The patient's supine abdominal film did not reveal evidence of intra-abdominal problem (Figure 1), however, the PA chest film (Figure 2) had a suspicious air collection (black arrows) under the right hemidiaphragm. The left lateral decubitus film (Figure 3) reveals air (white arrows) between the lateral border of the liver and abdominal wall.

## Discussion:

In order to evaluate for the presence of free intraperitoneal air, the patient was placed in a left lateral decubitus position and, after approximately 10 minutes, a film of the abdomen was obtained with the x-ray beam centered over the liver. While the patient was positioned left side down, the intraperitoneal air migrated to his right upper quadrant and was readily observed interposed between the parietal peritoneum and the liver. The patient was sent to surgery and was found to have a perforated duodenal ulcer.

Any time a patient is suspected of having free intraperitoneal air that is not seen on the standard views of an acute abdomen series, this maneuver will reveal even small amounts (1 to 3 cc's) of air when present.

## Bibliography:

Mindelzum RE and McCort JJ. In: Margulis AR and Burhenne HJ. (editors) Alimentary Tract Radiology. Third Edition. St. Louis: The C.V. Mosby Company, 1983, pp 391-397.

---

*Editor: Dr. David Harshfield is chief of the radiology service at the Veterans Administration Hospital in Little Rock, and director of radiology at Riverside Radiologist Group in North Little Rock.*

*Contributor: Kelly Grigg is a premedical student research assistant at the University of Arkansas for Medical Sciences in Little Rock.*



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# AMS Newsmakers

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**Dr. William D. Dedman**, of Camden, was recently elected president of the Arkansas Chapter of the American Academy of Family Physicians. He has served on the chapter's board of directors since 1987.

**Dr. Robert E. Donnell**, of Rogers, recently attended the "18th Symposium on Lung Disease" sponsored by the Southern Medical Association. The symposium explored clinical advances within the medical specialty of critical care and pulmonary medicine.

**Dr. William L. Mason** has joined Healthsource Arkansas as its medical director. He was formerly chief of staff at St. Vincent Infirmary Medical Center in Little Rock.

**Dr. Gary L. Moffitt**, of the Rogers Family and Occupational Medicine Clinic, recently attended a seminar in regard to alcohol testing to be implemented by the Department of Transportation on January 1, 1995.

**Dr. David Pyle**, of Jonesboro, has been elected to the board of directors at Simmons First Bank in Jonesboro. He is associated with the Northeast Arkansas Internal Medicine Clinic.

## Physician's Recognition Award

The Physician's Recognition Award is awarded each month to physicians who have completed acceptable programs of continuing education. The recipients for the month of August and September are:

Denver L. Barger	Little Rock
Michael T. King	Little Rock
Byrne R. Marshall	Little Rock
Kim Graves Tippin	Danville
Kanaka Vasudevan	Helena
Parthasarathy Vasudevan	Helena

# Medicine in the News

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## Health Care Access Foundation Update

As of October 1, 1994, the Arkansas Health Care Access Foundation has provided free medical service to 8,127 medically indigent persons, received 15,582 applications and enrolled 31,543 persons.

This program has 1,687 volunteer health care providers including medical doctors, dentists, hospitals, home health agencies, and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.

## UAMS Receives Grant for Research on Nutrition

U.S. Representative Ray Thornton recently celebrated the announcement of a new U.S. Department of Agriculture \$500,000, five-year, annual grant to further UAMS research on nutrition.

Several officials from the University of Arkansas for Medical Sciences were on hand for the announcement, including Dr. I. Dodd Wilson, dean of UAMS College of Medicine; Dr. Robert H. Fiser, Jr., assistant vice chancellor for regional programs, pediatrics department, College of Medicine; and Dr. Jonathan R. Bates, chief executive officer for Arkansas Children's Hospital.





**Grant Announcement**  
**Rural Physician Incentive Program, Act 763 of 1993**  
**Application Deadline: December 15, 1994**

Governor Tucker recently approved the release of \$300,000 into the Rural Physician Incentive Program, Act 763 of 1993 to sustain those physicians currently on the program and to accept a limited number of new physicians. This initiative was created to establish a program of financial assistance to encourage physicians to locate in and remain in the practice of family medicine in an Arkansas rural community having a population of 15,000 or less, and in a health professional shortage area (01 or 02 designation) or a medically underserved area as designated by the U.S. Department of Health and Human Services.

In order to enhance the retention as well as the recruitment of physicians in rural communities, physicians will be awarded grants totaling \$50,000 over a five year period for continuous service in a qualifying full-time practice in the same rural community. Payments are made in the following allocations:

Year 1	\$ 6,000
Year 2	\$ 8,000
Year 3	\$10,000
Year 4	\$12,000
Year 5	\$14,000

The physician must be a newly established physician (less than three years), practicing a minimum of thirty-two hours a week, serving Medicaid patients, and willing to work within an existing health care system. Grants are awarded on the basis of available funds with priority given to rural communities having the greatest need.

Physicians interested in receiving an application should contact:

Veronica Smith  
Office of Rural Health  
Arkansas Department of Health  
4815 West Markham, Slot 22  
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The deadline for submitting an application is December 15, 1994.

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# Resolution

---

## Robert G. Carnahan, M.D.

Whereas, the members of the Pulaski County Medical Society note with sincere sorrow the recent death of an esteemed colleague, Robert G. Carnahan, M.D.; and

Whereas, he distinguished himself as a leader in his chosen field of Psychiatry, serving for many years as Interim Director of the Arkansas State Hospital; and

Whereas, Dr. Carnahan was known by his patients and peers alike as a generous and caring physician; be it therefore

*RESOLVED*, that this resolution be adopted and filed in the permanent files of this Society; and

*RESOLVED*, that a copy of this resolution be sent to Dr. Carnahan's family as an expression of our heartfelt sympathy; and

*RESOLVED*, that a copy of this resolution be made available to *The Journal of the Arkansas Medical Society* for publication.

Adopted  
Executive Committee  
September 21, 1994

By Order of the Memorials Committee  
Bruce E. Schratz, M.D., Chairman  
Robert Watson, M.D.  
James Headstream, M.D.

# In Memoriam

---

## Samuel Z. Faier, M.D.

Dr. Samuel Z. Faier, of Fort Smith, died Tuesday, September 6, 1994. He was 87.

He is survived by his wife, Margot Stein Faier; two daughters, Susan Gail Faier of Chicago and Lynn Faier Benton of Palo Alto, Calif.; and two grandchildren, Julia Elise Benton and Brian Faier Benton, both of Palo Alto.

## Nathan Edward Strickland, M.D.

Dr. Nathan Edward Strickland, of Batesville, died Wednesday, September 21, 1994. He was 51.

Survivors include his wife, Gina Hester Strickland; a son, Nathan Edward Strickland II, of Atlanta, Georgia; a daughter, Mary Suzanne Strickland of Boulder, Colorado; a step-son, Marty Curtis Bullard of Batesville; a step-daughter, Andria Lee Bullard of Batesville; two brothers, Robert Franklin Strickland and Fred Douglas Strickland, both of Bald Knob; one sister, Mary Jeannie Myers of Beebe; father, Nathan Banks Strickland of Bald Knob; he was preceded in death by his mother.





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## November 30-December 3

**Understanding Managed Care: An Introductory Program for New Managers in HMOs.** Arizona Biltmore, Phoenix, Arizona. Sponsored by the GHAA. For more information, call (202) 778-3236.

## December 2-3

**Adolescent Violence: Intervention & Treatment.** Menninger Seeley Conference Center, Topeka, Kansas. For more information, call (800) 288-7377.

## December 7-9

**Outcomes & Disease Management.** Hyatt Regency San Francisco, California. Sponsored by the *Journal of Clinical Outcomes Management*. For more information, call (800) 872-0094.

## December 10

**Eleventh Annual Clinical Update in Pulmonary Medicine.** Bally's Park Place Casino Hotel and Tower, Atlantic City, New Jersey. Sponsored by the Department of Pulmonary Medicine, Deborah Heart and Lung Center, Browns Mills, New Jersey. For more information, call (201) 385-8080.

## December 10

**Evaluation and Management of Cardiovascular Disease in the Elderly.** The Ritz-Carlton Hotel, St. Louis. Presented by the cardiovascular Division and the Office of Continuing Medical Education at Washington University School of Medicine, St. Louis. For more information, call (800) 325-9862.

## December 10

**Urodynamics for Urologists and Gynecologists.** UC Davis Medical Center Cancer Center Auditorium, Sacramento, California. Sponsored by the Office of Continuing Medical Education and UC Davis School of Medicine and Medical Center. Category I credit: 6 hours. For more information, call (916) 734-5390.

## January 22-27, 1995

**21st Annual Midwinter Program in Continuing Medical Education for Psychiatrists.** Hyatt Regency Lake Tahoe, Incline Village, Nevada. Sponsored by the Office of Continuing Medical Education and UC Davis School of Medicine and Medical Center. Cat-

egory I credit: 25 hours. For more information, call (916) 734-5390.

## February 9-12, 1995

**50th Annual Postgraduate OB/GYN Assembly.** Beverly Hilton Hotel, Beverly Hills, California. Sponsored by the Obstetrical and Gynecological Assembly of Southern California. For more information, call (213) 937-5514.

## February 24-25, 1995

**Incontinence Update 1995.** Hyatt Regency, New Orleans, Louisiana. Sponsored by the Tulane University School of Medicine Department of Urology, Nursing Resource Center and Office of Continuing Medical Education. For more information, call (504) 588-5466 or (800) 588-5300.

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# Keeping Up

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## Drug Update

November 25, 12:00 noon, MCSA Union Medical Campus Conf. Rm. #3, El Dorado. Sponsored by AHEC-South Arkansas and presented by Tom Franks, M.D. Category I credit: 1 hour.

## Hepatitis C

January 26, 1995, 12:00 noon, MCSA Union Medical Campus Conf. Rm. #3, El Dorado. Sponsored by AHEC-South Arkansas and presented by Jerry Mann, M.D. Category I credit: 1 hour.

## Recurring Education Programs

As organizations accredited for continuing medical education by the Arkansas Medical Society, the organizations named certify that these continuing medical education activities meet the criteria for the credit hours specified in Category I of the Physician's Recognition Award of the American Medical Association.

### FAYETTEVILLE-VA MEDICAL CENTER

General Medical Topics, Thursdays, 12:00 noon, Auditorium, Bldg. 3  
Medical Grand Rounds, Thursdays, 12:00 noon, Conference Room, Bldg. 4

### HOT SPRINGS-AMI NATIONAL PARK MEDICAL CENTER

Continuing Medical Education Luncheon, Dec 9, Jan 13 & 27, 12:30 p.m., AMI Ozark - Quapaw Room

### LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL

Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium  
Genetics Conference, Wednesdays, 12:00 noon, Sturgis Bldg., room 457  
Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom  
Pediatric Grand Rounds, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium  
Pediatric Neuroscience Conference, 1st Thursday, 8:00 a.m., 2nd Floor Classroom  
Pediatric Pharmacology Conference, 5th Wednesday, 12:00 noon, 2nd Classroom  
Pediatric Research Conference, 1st Thursday, 12:00 noon, 2nd Floor Classroom

### LITTLE ROCK-ST. VINCENT INFIRMARY MEDICAL CENTER

Cancer Conferences, Thursdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Chest Conference, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Sandwich buffet served  
General Surgery Grand Rounds, 1st Thursday, 7:00 a.m. Smith Room. Light breakfast provided.  
GYN Surgery Cancer Conference, 2nd Monday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Interdisciplinary AIDS Conference, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Joint Tumor Conference, 1st Wednesday, 12:00 noon. CARTI Auditorium. Lunch provided.  
Journal Club, Tuesdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Mental Health Conference, 3rd Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Urology Grand Rounds, 1st Tuesday, 5:30 p.m., Southwestern Bell/Arkla room. Refreshments provided

### LITTLE ROCK-BAPTIST MEDICAL CENTER

Anesthesiology Conference, 3rd Thursday, 7:00 a.m., Conference Room 1  
Breast Conference, 3rd Thursday, 7:00 a.m., Conference Room 1  
GI Conference, 4th Friday, 11:30 a.m., Conference Room 1  
Grand Rounds Conference, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.  
Pathology Conference, 1st Tuesday, 3:00 p.m., Pathology Library  
Pediatric Grand Rounds, Tuesdays, 12:00 noon, Especially for Women Resource Room, 2nd floor/BMC. Category 1 credit available. Lunch provided.  
Pulmonary Conference, Tuesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.  
Sleep Case Conference, Fridays, 12:00 noon. Call BMC ext. 1902 for location. Lunch provided.

### MOUNTAIN HOME-BAXTER COUNTY REGIONAL HOSPITAL

Lecture Series, 3rd Tuesday, 6:30 p.m., Education Building  
Tumor Conference, Tuesdays, 12:00 noon, Carti Boardroom



## **NORTH LITTLE ROCK-BAPTIST MEMORIAL HOSPITAL**

*Chest & Problems Case Conference*, 3rd Wednesday, 12:00 noon, Assembly room. Lunch provided.

*Grand Rounds & Chest Conference*, 1st Monday (3rd, chest), 12:00 noon, Assembly room.

*Medicine Conference*, 1st Wednesday, 12:00 noon, Assembly room. Lunch provided.

*Surgery Conference*, 2nd Wednesday, 12:00 noon, Assembly room. Lunch provided.

*X-ray Case Conference*, 4th Wednesday, 12:00 noon, Assembly room. Lunch provided.

*As an organization accredited for continuing medical education by the Accreditation Council for Continuing Medical Education, the University of Arkansas for Medical Sciences certifies the following continuing medical education activities meet the criteria for Category I of the Physician's Recognition Award of the American Medical Association.*

## **LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES**

*ACRC Oncology Forum*, Thursdays, 4:00 p.m., UAMS ACRC 2nd Floor Board room, 1.5 credits

*Anesthesia Lecture Series*, Wednesdays, 4:00 p.m., UAMS Education Bldg., room G/110 A&B

*Anesthesia Morbidity & Mortality Conference*, Tuesdays, 6:45 a.m.; 2nd & 4th Thursdays, 4:00 p.m., UAMS Education Bldg., room G/110 A&B

*Arkansas Blood & Cancer Society Conference*, 6th Thursday, 7:30 p.m. Terrace Restaurant, Little Rock

*Cardiology Clinical Conference*, Mondays, 4:00 p.m., UAMS, room 3S06

*Cardiology Graphics Conference*, Wednesdays, 12:00 noon, UAMS, room 3S06

*CARTI North Tumor Board Cancer Conference*, 2nd Wednesday, 12:00 noon, CARTI North, Searcy

*Cardiothoracic Surgery Conference*, date, time, & location varies

*Cardiothoracic Surgery Monthly Journals Club*, 4th Saturday, 9:30 a.m., UAMS Surgery Dept. Library, room 2S/28D

*Cardiothoracic Surgery Morbidity & Mortality Conference*, 2nd Saturday, 9:30 a.m., UAMS Surgery Dept. Library, room 2S/28D

*Child Psychiatry Update/Case Conference*, 3 Fridays per month, 1:00 p.m., ACH Child Study Center conference room

*CME Outreach Program*, dates, times & locations vary

*Emergency Medicine Didactic Conference 1*, Thursdays, 12:00 noon. UAMS Education Bldg., room G/110A&B

*Emergency Medicine Didactic Conference 2*, Thursdays, 1:00 p.m., UAMS Education Bldg., room G/110A&B

*Emergency Medicine Grand Rounds 1*, Tuesdays, 3:00 p.m., UAMS Education Bldg., room B/106A&B

*Emergency Medicine Grand Rounds 2*, Tuesdays, 4:00 p.m., UAMS Education Bldg., room B/106A&B

*Endocrinology Case Conference*, Fridays, 7:30 a.m., ACRC 3rd floor conference room

*Family Practice Grand Rounds*, Tuesdays, 12:15 p.m., Family Practice Center, 6th and Elm

*Gastroenterology Grand Rounds*, Thursdays, 4:00 p.m., Gastroenterology conference room, 3D29

*GI/Radiology Conference*, Tuesdays, 8:00 a.m., UAMS Radiology conference room, M1/293

*Hematology/Oncology Fellow's Forum*, Fridays, 8:15 a.m., ACRC Betsy Blass conference room

*Interhospital Urology Grand Rounds*, 1st Tuesday, 5:30 p.m., St. Vincent Arkla/Bell room

*LR Cancer Conference*, Wednesdays, 12:00 noon, UAMS ACRC conference room three times a month, CARTI Auditorium once a month

*LR Vascular Conference*, time & date varies monthly, rotates between UAMS, SVI & BMC

*Medicine Grand Rounds*, Thursdays, 12:00 noon, UAMS Education Bldg., room G/131A&B

*Med/Path Conference*, 3rd or 4th Tuesday, 3:00 p.m., UAMS Shorey Bldg., room S/306

*Medicine Journal Club*, alternate Thursdays, 7:30 a.m., ACC Medicine Clinic conference room

*Medicine Research Conference*, Wednesdays (except 3rd), 4:30 p.m. UAMS Education Bldg. room B/135

*Neurology Clinical Case Conference*, Thursdays, 8:00 a.m., rotates between VAMC-LR, UAMS, & ACH

*Neuropathology Conference*, Thursdays, 9:15 a.m. VAMC-LR Pathology Dept. 1.25 credit hours

*Neuroradiology Conference*, Wednesdays, 4:00 p.m., UAMS Neuroradiology conference room, M1/293

*Neuroscience Conference (Basic)*, Mondays, 8:00 a.m., UAMS 7D33

*Neuroscience Conference (Basic & Clinical)*, Wednesdays, 4:00 p.m., UAMS 7C

*Neurosurgery Journal Club*, 2nd & 4th Thursdays, 8:00 p.m., 2 credit hours

*Neurosurgical Pathology Conference*, Thursdays, 4:00 p.m., VAMC-LR Neuropathology conference room, 2E141

*OB/GYN Fetal Boards*, 2nd Fridays, 8:00 a.m., ACH Sturgis Bldg.

*OB/GYN Grand Rounds*, Wednesdays, 7:45 a.m., UAMS Education Bldg., room G/131B

*Ophthalmology Problem Case Conference*, Thursdays, 4:00 p.m., UAMS Jones Eye Institute, 2 credit hours

*Ophthalmology Residency Morning Lectures*, Mondays, Wednesdays, Fridays, 7:30 a.m., UAMS Jones Eye Institute

*Orthopaedic Basic Science Conference*, Tuesdays, 8:00 a.m., UAMS Education Bldg., room B/135

*Orthopaedic Bibliography Conference*, Tuesdays, 8:30 a.m., UAMS Education Bldg., room B/135, 1.5 credit hours

*Orthopaedic Fracture Conference*, Tuesdays, 7:30 a.m., UAMS Education Bldg., room B/135

*Orthopaedic Grand Rounds*, Tuesdays, 10:00 a.m., UAMS Education Bldg., room B/135

*Pathology Autopsy Conference*, Wednesdays, 12:00 noon, VAMC-LR Morgue

*Psychiatry Grand Rounds*, Fridays, 11:00 a.m., UAMS Child Study Center Auditorium

*Surgery Basic Sciences Conference*, 1st Saturday, 7:30 a.m., ACRC 2nd floor conference room

*Surgery Grand Rounds*, Saturdays, 8:30 a.m., ACRC 2nd floor conference room

*Surgery Morbidity & Mortality Conference*, Saturdays, 9:30 a.m., ACRC 2nd floor conference room  
*Surgery Resident Case Conference*, Saturdays (except 1st), 7:30 a.m., ACRC 2nd floor conference room  
*Trauma Morbidity & Mortality Conference*, date & time varies monthly, ACRC 2nd floor conference room  
*Urology Adult Subject Oriented Conference*, once monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Basic Sciences Conference*, 2nd Tuesdays, 5:00 p.m., VAMC-LR, 4D resident office  
*Urology Clinical Didactic Conference*, 3rd Tuesday, 5:00 p.m., VAMC-LR, 4D  
*Urology Formal Teaching (Grand) Rounds*, once or twice monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Journal Club*, once a month, 5:00 p.m., VAMC-LR, 4D  
*Urology Morbidity & Mortality Conference*, once monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Pathology Conference*, 4th Thursday, 5:00 p.m., VAMC-LR, 4D  
*Urology Pediatric Conference*, once monthly, 5:00 p.m., ACH Sturgis Bldg., Clinic 2  
*Urology Pre-op/Didactic Conference*, Mondays, 5:00 p.m., VAMC-LR, 4D  
*Urology Radiology Conference*, 1st Thursday, 5:00 p.m., UAMS, Radiology Department  
*Urology Teaching Conference*, Wednesdays, 5:00 p.m., VAMC-LR, 4D  
*Urology VA Teaching Rounds*, every Friday, 7:30 a.m., VAMC-LR, 4D  
*Uro-radiology Conference (Urologic Imaging)*, 1st Tuesdays, 5:00 p.m., UAMS Radiology conference room  
*VA Chest Conference (combined Surgical/Medical Chest Conference)*, Mondays, 12:15 p.m., VAMC-LR, room 2D109  
*VA Diagnostic Imaging Conference*, Monday-Thursday, 8:00 a.m., VAMC-LR Nuclear Medicine conference room, room 1D173  
*VA GREEC/Geriatric Research Conference*, Tuesdays, 4:00 p.m., VAMC-LR, room 2D109  
*VA Hematology/Oncology Conference*, Thursdays, 8:15 a.m., VAMC-LR Pathology conference room 2E142  
*VA Lung Cancer Conference*, Thursdays, 3:00 p.m., VAMC-LR, room 2E142  
*VA Medical Service Teaching Conference*, Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68 room 130  
*VA Medicine-Pathology Conference*, Tuesday, 2:00 p.m., VAMC-LR, room 2D109  
*VA Medicine Resident's Clinical Case Conference*, Fridays, 12:00 noon, VAMC-LR, room 2D08  
*VA Physical Medicine & Rehab Grand Rounds*, 4th Friday, 11:30 a.m., VAMC-NLR Bldg. 68, room 118 or Baptist Rehab Institute  
*VA Surgery Grand Rounds*, Thursdays, 12:45 p.m., VAMC-LR, room 2D109, 1.25 credit hours  
*VA Topics in Rehabilitation Medicine Conference*, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR Bldg. 68, room 118  
*VA Weekly Cancer Conference*, Monday, 3:00 p.m., VAMC-LR, room 2E-142  
*White County Memorial Hospital Medical Staff Program*, once monthly, dates & times vary, White County Memorial Hospital, Searcy

#### **EL DORADO-AHEC**

*Behavioral Sciences Conference*, 1st & 4th Friday, 12:30 p.m., AHEC - South Arkansas  
*Chest Conference*, 3rd Wednesday, 12:30 p.m., Warner Brown Hospital  
*Dermatology Conference*, 1st Tuesdays and 1st Thursdays, AHEC - South Arkansas  
*GYN Conference*, 2nd Friday, 12:30 p.m., AHEC-South Arkansas  
*Internal Medicine Conference*, 1st, 2nd & 4th Wednesday, 12:30 p.m., AHEC-South Arkansas  
*Noon Lecture Series*, 2nd & 4th Thursday, 12:00 noon, AHEC - South Arkansas. Lunch provided.  
*Pathology Conference*, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas  
*Pediatric Conference*, 3rd Friday, 12:30 p.m., AHEC - South Arkansas  
*Pediatric Case Presentation*, 3rd Tuesday, 3rd Friday, AHEC - South Arkansas  
*Arkansas Children's Hospital Pediatric Grand Rounds*, every Tuesdays, 8:00 a.m., AHEC - South Arkansas (Interactive video)  
*Pathology Conference*, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas  
*Obstetrics-Gynecology Conference*, 4th Thursday, 12:30 p.m., AHEC - South Arkansas  
*Surgical Conference*, 1st, 2nd & 3rd Monday, 12:30 p.m., AHEC - South Arkansas  
*Tumor Clinic*, 4th Tuesday, 12:30 p.m., AHEC - South Arkansas

#### **FAYETTEVILLE-AHEC NORTHWEST**

*AHEC Teaching Conferences*, Tuesdays & Wednesdays, 12:00 noon, Washington Regional Medical Center  
*AHEC Teaching Conferences*, Fridays, 12:00 noon, Washington Regional Medical Center  
*AHEC Teaching Conferences*, Thursdays, 7:30 a.m., Washington Regional Medical Center  
*Medical/Surgical Conference Series*, 4th Tuesday, 12:30, Bates Medical Center, Bentonville  
*Primary Care Conferences*, 1st & 3rd Mondays, 12:00, every Tuesday 7:30 a.m., Washington Regional Medical Center

#### **FORT SMITH-AHEC**

*Gastroenterology Conference*, 3rd Tuesday every other month, 7:00 a.m., St. Edward Mercy Medical Center  
*Neuroradiology Conference*, 3rd Wednesday, 12:00 noon, St. Edward Mercy Medical Center  
*Neuroradiology Conference*, 1st Tuesday, 11:30 a.m., Sparks Regional Medical Center  
*Sparks Tumor Conference*, Thursdays, 12:00 noon, Sparks Regional Medical Center  
*Tumor Conference*, Mondays, 12:00 noon, St. Edward Mercy Medical Center



## JONESBORO-AHEC NORTHEAST

*AHEC Lecture Series*, 1st & 3rd Tuesday, 12:00 noon, Stroud Hall, St. Bernard's Regional Medical Center. Lunch provided.

*Arkansas Methodist Hospital CME Conference*, 7:30 a.m., Hospital Cafeteria, Arkansas Methodist Hospital, Paragould  
*Chest Conference*, 2nd Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.

*Citywide Cardiology Conference*, 3rd Thursday, 7:30 p.m., Jonesboro Holiday Inn

*Clinical Faculty Conference*, 5th Tuesday, St. Bernard's Regional Medical Center, Dietary Conference Room, lunch provided

*Craighead/Poinsett Medical Society*, 1st Tuesday, 7:00 p.m. Jonesboro Holiday Inn

*Independence County Medical Society*, 2nd Tuesday, 7:30 p.m., Batesville Country Club, Batesville

*Interesting Case Conference*, 4th Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.

*Jackson County Medical Society*, 3rd Thursday, 7:00 p.m., Newport Country Club, Newport

*Kennett CME Conference*, 3rd Monday, 12:00 noon, Twin Rivers Hospital Cafeteria, Kennett, MO

*Methodist Hospital of Jonesboro CME Conference*, 2nd Tuesday, 7:00 p.m., Cafeteria, Methodist Hospital of Jonesboro

*Neuroradiology Conference*, 3rd Friday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.

*Orthopedic Case Conference*, June 23, 7:30 a.m., Board Room, Northeast Arkansas Rehabilitation Hospital.

*Perinatal Conference*, 2nd Wednesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.

*Pocahontas CME Conference*, 3rd Wednesday, 12:00 noon & 7:30 p.m., Randolph County Medical Center Boardroom

*Tumor Conference*, Thursdays, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.

*Walnut Ridge CME Conference*, 3rd & last Tuesday, 12:00 noon, Lawrence Memorial Hospital Cafeteria

*White River CME Conference*, 3rd Thursday, 12:00 noon, White River Medical Center Hospital Boardroom

## PINE BLUFF-AHEC

*Behavioral Science Conference*, 1st & 3rd Thursday, 12:00 noon, Jefferson Regional Medical Center

*Chest Conference*, 2nd & 4th Friday, 12:00 noon, Jefferson Regional Medical Center

*Family Practice Conference*, 1st & 4th Tuesday, 12:00 noon, Jefferson Regional Medical Center

*Geriatrics Conference*, 3rd Friday, 12:00 noon, Jefferson Regional Medical Center

*Internal Medicine Conference*, 2nd & 4th Wednesday, 12:00 noon, Jefferson Regional Medical Center

*Obstetrics/Gynecology Conference*, 2nd Tuesday, 12:00 noon, Jefferson Regional Medical Center

*Orthopedic Case Conference*, 2nd & 4th Thursday, 12:00 noon, Jefferson Regional Medical Center.

*Pediatric Conference*, 3rd Wednesday, 12:00 noon, Jefferson Regional Medical Center

*Radiology Conference*, 3rd Tuesday, 12:00 noon, Jefferson Regional Medical Center

*Southeast Arkansas Medical Lecture Series*, 4th Tuesday, 6:30 p.m., Pine Bluff County Club. Dinner meeting.

*Surgery Conference*, 1st Friday, 12:00 noon, Jefferson Regional Medical Center

*Tumor Conference*, 1st Wednesday, 12:00 noon, Jefferson Regional Medical Center

## TEXARKANA-AHEC SOUTHWEST

*Chest Conference*, every other 3rd Wednesday, 12:30 p.m., St. Michael Hospital

*Neuro-Radiology Conference*, 2nd & 4th Tuesday, 12:00 noon, Wadley Regional Medical Center

*Residency Noon Conference*, Mondays through Thursdays, 12:00 p.m., AHEC-Southwest Family Practice Clinic

*Tumor Board*, Fridays, except 5th Friday, 12:00 noon, Wadley Regional Medical Center & St. Michael Hospital

*Tumor Conference*, every 5th Friday, 12:00 noon alternates between Wadley Regional Medical Center & St. Michael Hospital



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### MANUSCRIPT STYLE

Author information should include titles, degrees, and any hospital or university appointments of the author(s). All scientific manuscripts must include an abstract of not more than 100 words. The abstract is a factual summary of the work and precedes the article. Manuscripts should be typewritten, double-spaced, and have generous margins. Subheads are strongly encouraged. The original and one copy should be submitted. Pages should be numbered. Manuscripts are not returned; however, original photographs or drawings will be returned upon request after publication. Manuscripts should be no longer than ten typewritten pages. Exceptions will be made only under most unusual circumstances.

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References should be limited to ten; if more than ten are listed, the author(s) may designate the ten most significant to be printed and readers will be referred to the author(s) for the complete list. References must contain, in the order given: name of author(s), title of article, name of periodicals with volume, page, month and year. References should be numbered consecutively in the order in which they appear in the text. Authors are responsible for reference accuracy.

### ILLUSTRATIONS

Illustrations should be professionally drawn and/or photographed. Glossy black and white photos are preferred. They should not be mounted and should have the name of the author(s) and figure number penciled lightly on the back. An arrow should indicate the top of the illustration. In photographs in which there is any possibility of personal identification, an acceptable legal release must accompany the material. Up to four illustrations will be accepted at no charge to the author(s). If more than four are necessary, it is understood that the author(s) will be responsible for the reproduction costs.

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diseases. The CCC will provide a continuity of care from the cradle to the grave under the supervision of a primary care physician. Tertiary care medical knowledge will be used to serve the medical needs of each person treated in their community with a priority for care to be delivered in the home environment. Until genetic engineering can safeguard people against environmental triggers of disease, the focus on the home environment is important because disease prevention is optimally delivered by altering behaviors and lifestyle that have been linked to those diseases. Patient's natural behavior does not occur in tertiary care centers, it occurs at home.

Community care centers will be staffed by multidisciplinary teams under the leadership of a primary care physician. The health care team will include a nurse practitioner, clinical psychologist, clinical social worker, nutritionist, and speech and language pathologist in addition to the physician. Each member of the health care team will provide hands-on caretaking to each person throughout the life-span focusing on prevention and wellness. Each health care professional brings a unique perspective which will be integrated into the delivery of health care. Professional turf issues will be minimized because each member of the health care team provides a continuity of care for every patient, not merely momentary consultation. Each member of the health care team by working together on a daily basis providing continuity of care to individuals in their local community will gain new perspectives of the work of their professional colleagues. The interplay of each professional's unique perspective, enhanced by intimate observation of the other members of the health care team, will provide a synergism for the delivery of health care. The team must share collective knowledge to arrive at an integrated plan of care. The multidisciplinary team also provides a dynamic model which families and the community can use as a guide for wellness to replace the sense of alienation and fragmentation which plagues society today. The physician, although maintaining ultimate responsibility for patient care, may choose to delegate decision making to any member of the team, or will need to make an ultimate decision when disagreement exists to ensure a unity in care.

The multidisciplinary team in the community care center will be one component of the community. The community of today was the village of yesteryear. The ancient proverb "It takes a village to raise a child" can help guide the change which is occurring in medicine today. Historically, villages have supported the family to attend to each member, such as raising a child or caring for an elderly grandparent. The village now includes schools, churches, recreation centers, businesses, friends, and extended families who together form local government. Community care centers may be located in today's village in the local

hospital, or alternatively in a community recreation center or a business such as Wal-Mart. The primary place to deliver health care should be in the home environment with the backup of the community care center and the local hospital when needed. Complicated disorders requiring new technology and research knowledge may need a tertiary care hospital, but individuals would be returned to the community as soon as possible.

Computers and villages with a multidisciplinary medical team would form the basis of community care centers. Wellness and prevention would be the focus of medical care providing continuity of care for every member of the community. The delivery of medical care would be decentralized from large cities into small urban and rural communities. Arkansans have always prized and focused on their community. Our state is in the position to set the standard for prevention and wellness oriented medical care for our country. The challenge will be for the physicians of Arkansas to unite with other health care providers and members of the community to create a standard for quality, affordable, personal, home based health care that will allow each person to meet their full physical, emotional, intellectual, and spiritual potentials throughout life. ■

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# Survival and Morbidity Rates for Very Low Birthweight Infants in Arkansas

Susan Landers, M.D.\*  
 Russell S. Kirby, Ph.D.  
 Tandy Miller, RN

Therese J. Green, RNC  
 Robert W. Arrington, M.D.

## INTRODUCTION

Accurate survival and morbidity figures for very low birth weight (VLBW) infants are essential for perinatal decision making and family counseling. Obstetricians, family practitioners and pediatricians require current information with which to make decisions regarding aggressiveness of perinatal and neonatal care. Recent advances in neonatal intensive care and technology have resulted in improved outcomes for extremely premature infants. Several multicenter reports have documented recently improved survival and diminished morbidity for live born infants of less than 28 weeks gestation.<sup>1-4</sup> Similarly, at the two tertiary care neonatal centers of the University of Arkansas for Medical Sciences we have observed a continued improvement in outcome for very low birth weight infants. This report provides information about survival and morbidity of VLBW infants to the physicians who make decisions about delivery, life support and early neonatal care.

## METHODS

From July 1, 1991 through December 31, 1993 we recorded information on all VLBW infants weighing 1500 g or less at birth, who were inborn at the University Hospital of Arkansas and all outborn VLBW infants transferred to Arkansas Children's Hospital in Little Rock, Arkansas. Assignment of gestational age was made on the basis of antenatal obstetric assessment (based on last menstrual period, early obstetric examinations and obstetrical ultrasound when available) because this is the information usu-

ally available to parents and physicians during the antenatal period. Gestational age was also determined by the Ballard exam. Because significant differences exist between obstetric measures of gestational age and the Ballard physical assessment, with apparent overestimation of gestational age by the Ballard assessment prior to 32 weeks gestation,<sup>5,6</sup> we chose to use only the obstetric measures of gestational age for reporting purposes in this paper. Gestational age of 24 weeks or greater was not used as a criterion for resuscitation. All infants weighing 500 grams or more at birth and all infants deemed viable by their physician were provided resuscitation at birth and neonatal intensive care. Infants were considered live born if there were any signs of life at birth.

More than 30 diagnostic and therapeutic variables were collected for each infant from birth or hospital admission until death or hospital discharge.<sup>7</sup> A neonatology specialty nurse supervised by attending neonatologists documented all diagnostic and therapeutic conditions using strict criteria. Demographic, pregnancy and delivery data were obtained soon after birth. Neonatal diagnostic, therapeutic and outcome data were gathered throughout each infant's hospital stay. In instances where infants were transferred to secondary level units, survival data were collected until the infant was discharged home or transferred to the chronic care facility. All infants received at least one and usually two cranial ultrasound examinations during the first week. Additional ultrasound exams were performed as indicated according to the degree of hemorrhage identified. Most infants had cranial sonograms prior to discharge at 36 to 40 weeks post-conceptual age, or at term.

All neonatal survival and outcome data are presented according to the World Health Organization's standard of 250 gram birth weight subgroups. All live births of 501 grams and above were included in the analyses.

\* Susan Landers, M.D., Russell S. Kirby, Ph.D., Tandy Miller, RN, Therese J. Green, RNC and Robert W. Arrington, M.D., are with the Department of Pediatrics and Division of Neonatology, University of Arkansas for Medical Sciences and Arkansas Children's Hospital, Little Rock, Arkansas.



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**Outcome Definitions** Uniform definitions of all diagnostic and therapeutic data items included:

**hyaline membrane disease (HMD)** - a significant oxygen requirement, usually 50% or greater and a compatible reticulogranular chest radiographic appearance, with clinic resolution of disease over three to five days or sooner if artificial surfactant had been given;

**pulmonary interstitial emphysema (PIE)** - any radiographic appearance of interstitial air leak;

**bronchopulmonary dysplasia (BPD)** - an oxygen requirement at 28 days of age amount surviving infants; steroid therapy for chronic lung disease - three to six weeks of systemic dexamethasone therapy given to assist weaning and extubation from mechanical ventilation;

**intermittent positive pressure ventilation (IPPV)** - conventional mechanical ventilation for one month or greater;

**high frequency jet ventilation (HFJV)** - use of the Bunnell jet ventilator for greater than four hours;

**patent ductus arteriosus (PDA)** - typical murmur and other physical signs, confirmed by an echocardiogram, symptomatic to a degree requiring indomethacin therapy or surgical ligation;

**early-onset sepsis** - clinical signs of sepsis with a positive blood culture and/or a positive urine antigen test within the first three days of life;

**late-onset sepsis** - clinical signs of sepsis with one or more positive blood cultures after three days of age;

**necrotizing enterocolitis (NEC)** - pneumatosis

cystoides intestinalis, portal venous air or pneumoperitoneum or abdominal radiographs;

**birth asphyxia** - neurological depression at birth combined with documented cardiopulmonary resuscitation (chest compressions and medications ) at birth, or cord pH of 7.15 or less;

**neonatal seizures** - clinical seizure activity, usually, but not always confirmed by electroencephalographic abnormalities;

**intraventricular hemorrhage (IVH)** - grade I periventricular hemorrhage only, grade II intraventricular hemorrhage, grade III intraventricular hemorrhage with ventricular enlargement, and grade IV any of the above plus intraparenchymal hemorrhage;

**periventricular leukomalacia (PVL)** - echodensities or cystic areas in a periventricular location on cranial ultrasound at 36 to 40 weeks post-conceptual age. **Retinopathy of prematurity (ROP)** was diagnosed using the international classification of ROP:<sup>8</sup> prethreshold ROP - zone 2 stage 2 with plus disease or zone 2 stage 3 disease, threshold ROP - zone 1 or 2 stage 3 with plus disease treated with laser surgery.

## RESULTS

During the 30 month period of study there were 629 VLBW infants who weighed 501 to 1500 grams at birth admitted to our two neonatal intensive care units. There were 98 infants 501 to 750 grams birth weight, 178 infants 751 to 1000 grams, 172 infants 1001 to 1250 grams and 181 infants 1251 to 1500 grams birth weight. Fifty-two percent were male and 55% white. Figure 1

denotes percent survival of VLBW infants by gestational age and inborn or outborn delivery using two weeks gestation strata. Survival rates for inborn infants were greater than for outborn infants at and above 24 weeks gestation.

Table 1 summarizes the frequency of medical outcomes and therapeutic interventions for this cohort of infants displayed according to 250 grams birth weight subgroups. The overall survival rate was 84%. Amount the smallest infants 501 to 750 grams birth weight the survival rate was 53%. Survival increased to 79%, 94% and 97% for each progressive increase in 250 grams birth weight subgroups.

The prevalence of HMD and artificial surfactant therapy was high in all the subgroups. PIE

Table 1  
Frequency of Outcomes and Interventions: VLBW Infants 1991-1993  
UAMS - ACH

Outcome or Intervention	Birth Weight (grams)				All Birth Wts. (n=629)
	501-750 (n=98)	751-1000 (n=178)	1001-1250 (n=172)	1251-1500 (n=181)	
HMD	82	79	77	52	71
Surfactant	66	60	47	33	50
PIE	31	22	13	8	17
HFJV	12	19	10	4	11
PDA	33	37	24	13	26
Oxygen at 28 days*	85	66	27	7	36
Oxygen at 3 months*	29	6	2	0	5
Steroids for BPD	37	39	15	2	21
IPPV at 1 month*	71	44	11	2	22
IPPV at 3 months*	12	1	1	0	2
Sepsis, early onset	6	6	9	5	6
Sepsis, late onset	30	32	17	7	20
Meningitis	2	2	0	1	1
NEC	3	6	4	3	4
Asphyxia	36	25	16	11	20
Neonatal Seizures	21	15	9	7	12
IVH					
Grade 0 (no IVH)	51	49	65	77	62
Grade 1	12	16	18	12	15
Grade 2	4	6	6	4	5
Grade 3	9	13	5	4	8
Grade 4	14	15	5	1	8
PVL**	12	16	9	5	10
ROP*					
Stage 0	2	9	20	36	21
Stage 1	13	33	40	23	30
Stage 2	27	32	14	7	18
Prethreshold	27	13	3	1	8
Threshold	27	8	1	1	5
Survived	53	79	94	97	84

Values given as percentages. \* indicates survivors only (n=529).

\*\* 93% screened with cranial ultrasound



Retinopathy of prematurity occurred to some degree in the majority of very low birth weight infants; however, severe ROP was uncommon. Prethreshold ROP occurred in only 8% and threshold ROP in 5% of VLBW infants. As with IVH, the highest prevalence of the most severe degrees of ROP occurred in the extremely low birth weight infants weighing 1,000 grams or less at birth.

Table 2 summarizes clinical variables for the infants by inborn or outborn delivery. For infants in each of three birth weight subgroups, 501 to 750 grams, 751 to 1000 grams and 1001 to 1500 grams, survival was greater for inborn infants. The prevalence of HMD, surfactant and steroid therapy were roughly comparable in each group, yet rates of both IVH and BPD (as measured by oxygen and IPPV at 28 days) were higher in outborn infants. Stage 3 ROP (prethreshold and threshold disease) was equally prevalent in inborn compared to outborn infants.

## Discussion

By reviewing these outcomes for VLBW infants we hope to demonstrate that for VLBW premature infants, especially those 1000 grams or less at birth, survival is quite good and occurs without an overwhelming amount of morbidity. One-half of infants 750 grams or less at birth do not have any IVH. Forty percent of these infants have mild or no ROP. The frequencies of IVH and PVL we found are within ranges reported recently for VLBW infants by two

**Table 2: Frequency of Clinical Variables and Outcome**  
**VLBW Infants, 1991–1993**

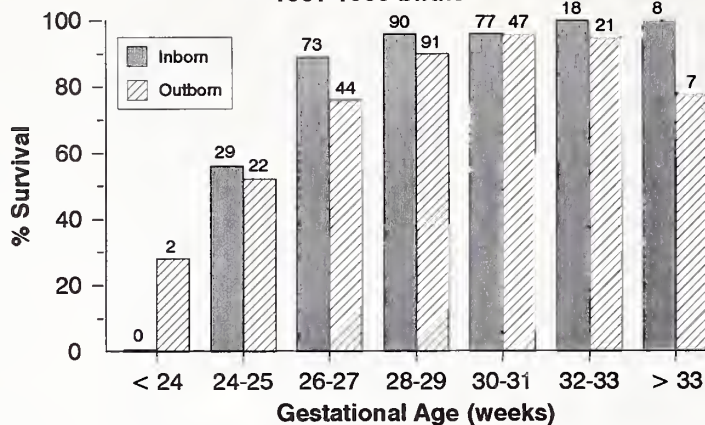
	Inborn n=341	Outborn n=288
<b>Survival</b>		
501-750 g	37 (61%)	15 (41%)
751-1000 g	77 (82%)	64 (76%)
1001-1500 g	181 (97%)	155 (93%)
<b>HMD</b>		
501-750 g	48 (79%)	32 (86%)
751-1000 g	78 (83%)	63 (75%)
1001-1500 g	106 (57%)	121 (72%)
<b>Surfactant</b>		
501-750 g	40 (66%)	25 (68%)
751-1000 g	57 (61%)	50 (60%)
1001-1500 g	50 (27%)	90 (54%)
<b>IVH, any grade</b>		
501-750 g	23 (38%)	16 (43%)
751-1000 g	40 (43%)	50 (59%)
1001-1500 g	43 (23%)	55 (33%)
<b>Steroids for BPD</b>		
501-750 g	24 (39%)	12 (32%)
751-1000 g	29 (31%)	40 (48%)
1001-1500 g	10 (5%)	19 (11%)
<b>BPD (Oxygen @ 28 d)</b>		
501-750 g	29 (78%)	15 (100%)
751-1000 g	43 (56%)	50 (78%)
1001-1500 g	25 (14%)	30 (19%)
<b>BPD (IPPV @ 28 d)</b>		
501-750 g	23 (62%)	14 (93%)
751-1000 g	23 (30%)	38 (59%)
1001-1500 g	6 (3%)	14 (9%)
<b>Severe BPD (Oxygen @ 3 mo.)</b>		
501-750 g	10 (27%)	5 (33%)
751-1000 g	4 (5%)	4 (6%)
1001-1500 g	1 (1%)	2 (1%)
<b>Severe BPD (IPPV @ 3 mo.)</b>		
501-750 g	6 (16%)	0 (0%)
751-1000 g	1 (1%)	1 (2%)
1001-1500 g	0 (0%)	1 (1%)
<b>ROP, stage 3</b>		
501-750 g	20 (54%)	8 (53%)
751-1000 g	17 (22%)	13 (20%)
1001-1500 g	5 (3%)	5 (3%)

multicenter neonatal networks.<sup>1,3</sup> For infants weighing less than 1000 grams at birth the high survival and relatively low morbidity rates we have seen are consistent with an improvement in outcome noted by others.<sup>4</sup>

Although BPD occurs often and the requirement for mechanical ventilation at one month of age is prevalent among extremely low birth weight infants, only a few remain on supplemental oxygen and mechanical ventilation at three months of age. The prevalence of BPD, steroid therapy for BPD and ventilation at one month of age in our population are comparable to figure recently published for VLBW infant outcomes.<sup>1,3</sup>

The fact that our VLBW infants born at a level III perinatal facility have lower mortality and morbidity compared to our outborn infants is not surprising. Many prior studies have shown that inborn VLBW infants fare better than outborns. Recently Kirby demonstrated that among infants born in Arkansas survival is significantly improved where infants are born at a perinatal center.<sup>9</sup>

**Figure 1. VLBW Survival by Gestational Age  
1991-1993 Births**



Gestational age determined by obstetrical dates.

Inborn = UAMS, Outborn = ACH

Number of infants surviving in each group noted at top of bar.

Our data suggest that VLBW morbidity is not increased despite increased survival in the lower birth weight subgroups. This is consistent with other reports of VLBW infant outcomes. Unfortunately, increased survival of VLBW infants has been interpreted to mean increased handicaps by some obstetricians and pediatricians. Several recent studies of the developmental outcomes of VLBW infants confirm that the rate of handicaps is not increasing.<sup>10,11</sup> Although we can not predict long term handicap by short term outcome measures alone, the prevalence of severe degrees of IVH, PVL, severe ROP and prolonged oxygen and ventilator requirements are generally considered to be predictors of chronic morbidity and significant neurodevelopmental sequelae.<sup>12-14</sup> Thus low rates of these outcomes probably predict low prevalence of long term neurodevelopmental abnormalities among VLBW infants.

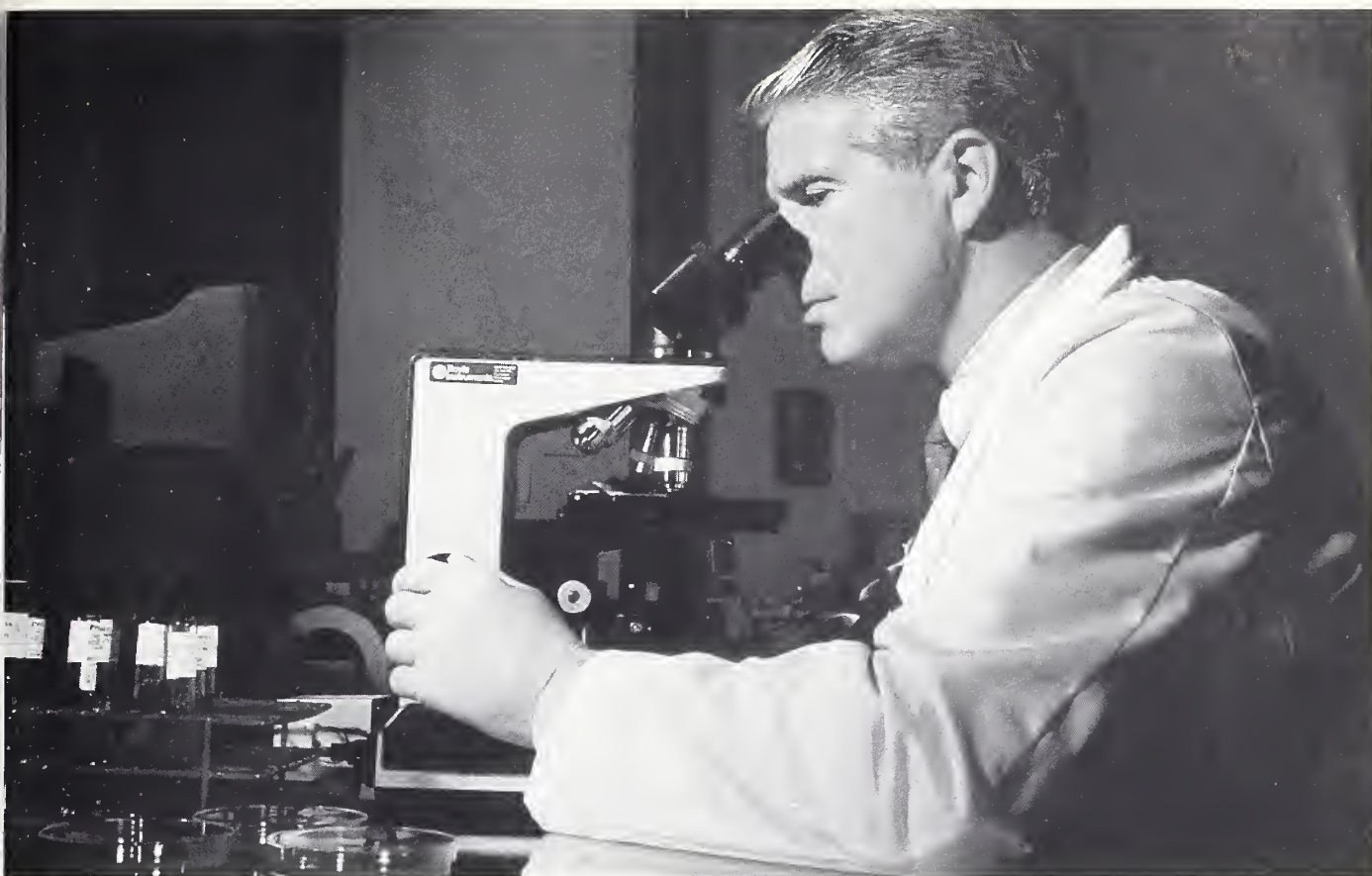
Timely review of VLBW infant outcomes is important for a number of reasons. Obstetrical, family medicine and pediatric clinical practice is influenced by physicians' perception of outcome. Expectation of good results for VLBW infants leads to aggressive management which may improve survival. Accurate data are necessary for appropriate counseling of parents and families who face the delivery of very early gestation infants. Informed consent for delivery management requires current information about neonatal outcome. Finally, a continued emphasis on maternal transport and inborn delivery of VLBW infants is desirable whenever possible. Optimizing neonatal intensive care with inborn delivery and management of VLBW infants at a perinatal center should be our goal whenever possible, since our data suggests that in Arkansas inborn infants survive more often and have lower morbidity than their outborn counterparts.

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# Surgical Treatment of Intractable Epilepsy

Gregory B. Sharp, M.D.\*

Approximately 0.5-1% of the population has epilepsy at a given point in time, and of this group 20-30% have seizures that cannot be adequately controlled.<sup>1-7</sup> About one-half with uncontrolled seizures could potentially benefit from surgical intervention. The modern surgical era in the 20th century has spurned a renewed interest in surgical treatment for medically intractable seizures. Persons with epilepsy deserve aggressive medical management first with a goal of complete seizure control. Persistent seizures typically have a negative impact on psychosocial development, and educational and vocational endeavors. Intractable patients should be evaluated for consideration of surgical treatment when indicated.

## CRITERIA FOR CONSIDERATION FOR SURGICAL TREATMENT

Several criteria need to be met before surgical treatment is considered. The first is medical intractability. Proper medical management with prior use of at least three major anticonvulsants either as single agents or in combination has proven to be unsuccessful in controlling seizures. Generally a period of at least two years of medical management without establishing seizure control exists before surgical evaluation is considered. The seizures must also be considered disabling for the individual, with the frequency and severity resulting in significant negative impact on his or her level of functioning. If surgery is performed, the potential improvement in seizure control must have the capability of improving function. For instance, if occasional seizures in an otherwise functional person produce a significant negative psychosocial impact, impair educational progress, or prevent the ability to gain and maintain employment, surgery may be a viable option. On the other hand, in an individual with a low level of functioning, frequent seizures may not produce additional disability, and surgery with a resultant decrease in seizures would not produce functional gain. There should also be no evidence that spontaneous resolution of seizures over time is probable. Children with

benign epilepsy of childhood or other seizure types that are likely to remit should be excluded from consideration. Factors that tend to indicate a poor probability of spontaneous resolution of seizures include frequent seizures, onset at an early age, the tendency for secondary generalization, an associated structural cerebral abnormality, and an abnormal neurological status.<sup>8</sup>

## PSYCHOLOGICAL AND SOCIAL CONSIDERATIONS

Intractable seizures commonly result in significant psychosocial complications. Continued uncontrolled seizures during childhood and adolescence may produce problems with peer relationships, poor self-esteem, a lack of self-confidence, a decrease in independence, parental overprotection, and decreased expectations by teachers. Some children may also have specific problems with decreased intellectual functioning, attention deficit disorder, learning disabilities, or behavioral problems that negatively impact educational performance and psychosocial development.<sup>9-11</sup> Adults with long-standing intractable seizures tend to have less education, vocational disability, poor self-esteem, increased dependency on others, and a tendency for personality disorders.<sup>12</sup>

Appropriate selection of surgical candidates as early as possible and during childhood if indicated may lessen the tendency for progressive psychosocial decline, and result in improved self-image, independence, interpersonal relationships, educational performance, and vocational outcome. Adult patients with a long-term history of intractable seizures have had their personalities and functional roles in society solidly molded, and it may be much more difficult to achieve functional and vocational improvement. Special attention should be provided to enhance vocational rehabilitation when indicated.

Children with numerous seizures may experience retardation, stasis, or decline in intellectual and neuropsychological development and performance. Increased exposure to AED's especially with higher dosage and polypharmacy are more likely to produce an adverse effect. The identification of cognitive decline felt to be secondary to persistent epileptic activity without evidence of an underlying progressive disease should prompt consideration of surgical treat-

\* Gregory B. Sharp, M.D., is Assistant Professor of Pediatrics & Neurology at the University of Arkansas for Medical Sciences and Co-Medical Director, Arkansas Comprehensive Epilepsy Program.



ment.

## TYPES OF EPILEPSY AMENABLE TO SURGERY

The primary goal of epilepsy surgery is to render the patient free of seizures, or at least result in a prominent decrease in seizure frequency and severity without producing a functional deficit. Partial or focal onset seizures with or without secondary generalization are most amenable to surgical intervention. Persons with partial onset seizures associated with a focal structural cerebral abnormality where the lesion and the surrounding epileptogenic zone can be safely removed have the best chance for surgical cure. Excellent results are also realized with temporal lobectomies performed to prevent temporal onset seizures. Extratemporal, nonlesional partial epilepsy does not respond as well to focal resection. Occasionally, more extensive resection including functional hemispherectomy may be indicated when prominent hemispheric epileptic activity and typically prominent functional deficit such as contralateral hemiparesis coexist. Primary generalized seizures are usually not amenable to surgical treatment; however, corpus callosotomy is sometimes effective in reducing generalized seizure frequency, especially with atonic seizures. Individuals with seizures associated with progressive or metabolic diseases, or lesions that cannot be completely removed are not good surgical candidates.

## PRESURGICAL EVALUATION

Presurgical evaluation for the consideration of epilepsy surgery is comprehensive and can be divided into three phases. Phase I includes neurological examination, documentation and establishment of compliance with AED's, documentation of medical intractability, and obtaining a thorough social and psychological screening evaluation.

Phase II proceeds with a complete neuropsychological battery, MRI of the brain, video EEG monitoring, and functional neuroimaging when indicated. The goal of neuropsychological evaluation is directed to establish intellectual functioning and specific modalities, and localize areas of dysfunction that may correlate anatomically with the epileptogenic focus. This evaluation also establishes baseline neuropsychological data to be compared with future testing results including postoperative assessment.<sup>13</sup> A high quality MRI scan with gadolinium injection, including coronal imaging provides the best assessment for structural brain abnormalities.<sup>14,15,16</sup> Functional neuroimaging (SPECT, PET) may help localize foci of functional abnormality in the absence of a structural lesion.<sup>16-21</sup> Some centers are also using additional techniques such as 3-D MRI reconstruction and volumetric analysis, MRI spectroscopy, and functional MRI.<sup>16,22,23,24</sup> The patient is admitted to a video EEG monitoring unit for continuous 24-hour video and EEG monitoring. Computerized EEG recording capabilities have greatly enhanced this method. The goal of monitoring is to detect and localize epileptic activity and most importantly the focus of seizure onset. Typically several clinical sei-

zures are recorded to determine the consistency of the focal onset and appearance of the seizure discharge. The correlation of interictal and ictal abnormalities associated with a single epileptogenic focus is consistent with the best chance for surgical cure. This is especially true when there is an associated structural or functional abnormality detected with neuroimaging techniques.<sup>25</sup>

Phase III if indicated, may include a WADA test, invasive EEG monitoring, and functional mapping. The WADA test is performed via angiography in many patients considered for temporal lobectomy or more extensive resection. An angiographic catheter is advanced into the internal carotid artery, and a bolus of sodium amobarbital (Amytal) is injected to briefly anesthetize most of the unilateral cerebral hemisphere. During this period, memory and language testing can be performed. Following recovery, the opposite side is likewise tested. Intact memory and language when the side considered for resection is tested, would indicate an unlikely probability of producing an associated functional deficit. A prominent transient deterioration in memory and/or language abilities may contraindicate surgery.<sup>26-34</sup> When adequate localization of the seizure focus cannot be determined with scalp EEG (+/- sphenoidal electrodes), or when the possibility of producing a functional deficit is more likely, more invasive intracranial EEG monitoring techniques may be employed. A grid or strips of electrodes embedded in sialastic 1 cm apart may be placed subdurally over the cortical surface. This is especially useful when the focus can be lateralized to one cerebral hemisphere and a given region, and provides for more exact localization of the epileptic focus. Prolonged monitoring is again performed to definitively localize interictal and ictal abnormalities. Functional mapping can be performed by electrical stimulation that results in observed clinical manifestations. For example, stimulation via electrodes overlying Wernicke's speech area results in speech arrest. Planning for surgical resection of the epileptogenic focus with avoidance of functional tissue can be performed. Depth electrodes are sometimes used, especially when lateralization of the seizure focus cannot be delineated. For example, the patient may have bilateral temporal lobe epileptiform abnormalities with scalp EEG recordings, and seizure onset localization is not clear. Depth electrodes can be placed stereotactically into mesial temporal lobe structures bilaterally. EEG monitoring may then consistently lateralize the focal onset. Intraoperative cortical EEG monitoring is typically performed prior to and following resection. Even invasive monitoring may sometimes not adequately localize the seizure onset, reveal multifocal sites of seizure onset, or indicate that surgical excision of the focus may also result in a functional deficit, therefore; surgical intervention is contraindicated.<sup>34-40</sup>

## TEMPORAL LOBECTOMY

The temporal lobe is the most common site of focal epileptogenesis. Temporal lobe seizures commonly begin in middle childhood or adolescence, but may begin in infancy or later life. Causes of temporal lobe epilepsy may include mesial temporal sclerosis, low grade glioma, vascular malformation, trauma,

ischemic injury, previous infection, cortical dysplasia, or may be undetermined. Mesial temporal sclerosis may actually produce seizures, occur as a result of seizures, or both. Hippocampal sclerosis is pathologically identified in 30-65% of epileptic temporal lobe resections. Hippocampal neurons appear to be most sensitive to damage during infancy and early childhood and may be susceptible to ischemic injury, infection, trauma, febrile seizures, or prolonged seizures. Prolonged exposure to recurrent seizures may result in progressive sclerosis. A loss of neurons occurs in all areas of the hippocampus, especially in CA1, CA3, and the hilus of the dentate nucleus. There is prominent astrocytosis. Increased axonal branching and synaptic reorganization produce a recurrent excitatory system that promotes synchronous repetitive firing and seizure propagation.<sup>41-44</sup>

The standard anterior temporal lobectomy includes resection of the anterior portion of the temporal lobe and the mesial structures (amygdala and hippocampus). More extensive resections may be indicated.<sup>45,46</sup> Most series would indicate a 70-75% chance of rendering the patient seizure free following temporal lobectomy. Up to 90% will have greater than 80% reduction in seizure frequency. Higher seizure free percentages may be realized when all evaluative tests consistently indicate only unilateral temporal lobe abnormalities, especially when there is an associated structural abnormality. Expectant results may be lessened by bilateral temporal or extratemporal epileptiform EEG, or structural abnormalities.<sup>47-51</sup>

Risks of temporal lobectomy include speech dysfunction with resection from the dominant hemisphere. Speech problems occur occasionally, are usually mild, and commonly transient. Memory dysfunction, usually involving short term memory may rarely occur. Memory representation is typically bilateral, and resection of an abnormal hippocampus usually does not result in memory loss. The most common deficit is a visual field defect, typically a contralateral homonymous superior quadrantanopsia. This is likely to occur when the lateral temporal resection exceeds 5-6 cm posterior to the temporal pole. Potential complications may also arise from infarction, hemorrhage, or infection.<sup>47-57</sup>

## EXTRATEMPORAL FOCAL RESECTION

Focal resection from extratemporal location is typically not associated with as good of an outcome as compared to temporal lobectomy and should be approached with more caution. The overall incidence of becoming seizure free following extratemporal resection ranges from 17-70% with significant (>80%) seizure reduction in 50-80% of patients. Significant reduction may be very rewarding in patients with very frequent seizures.<sup>58-61</sup> The best results are realized when there is an associated structural lesion that can be safely resected including the surrounding epileptogenic zone.<sup>62</sup> In some instances resection of the lesion alone may be sufficient.<sup>63</sup> Production of a functional deficit should be avoided.

## HEMISPHERECTOMY

Children that suffer from frequent seizures that arise from multiple or widespread hemispheric

epileptogenic foci, who also typically have a contralateral functional hemiparesis may benefit from hemispherectomy. Frequent seizures are very debilitating and significantly prohibit developmental progress. Large hemispheric structural abnormalities, Rasmussen's encephalitis, and infantile spasms associated with hemispheric abnormalities are commonly indicators for this procedure. Functional hemispherectomy is usually the procedure of choice, and consists of a large central resection including removal of the temporal lobe and transection of all commissural projections. About one-third of the hemispheric tissue is not removed, but is disconnected. This provides for a mechanical buffer and markedly reduces significant morbidity and mortality rates that were initially associated with complete hemispherectomy. Resultant complete to near complete seizure control is established in up to 85% of patients. Developmental and functional progress and outcome are typically markedly improved. Motor function is not significantly reduced when a preoperative hemiparesis was already present.<sup>64-72</sup>

## CORPUS CALLOSOTOMY

Some seizure types may respond to sectioning a portion of the corpus callosum. Atonic seizures are most significantly reduced by this procedure. Primary generalized seizures and focal onset seizures with rapid secondary generalization where focal resection is not possible may also improve in response to corpus callosotomy. Patients with frequent injuries due to falls produced by seizures are most commonly considered for this surgery. Only a small group (10-15%) of patients will become seizure free but many (up to 70%) may experience a significant reduction in seizure frequency. Typically, the anterior 2/3 to 3/4 of the corpus callosum is sectioned.<sup>73-79</sup>

## POST-OPERATIVE MANAGEMENT

Following epilepsy surgery, most patients recover quickly and resume most normal activities within 6 weeks post-operatively. Preoperative AED's are continued, and unless otherwise indicated, are not significantly altered during the first post-surgical year. Medications may be simplified to monotherapy or dosages decreased after the first year. AED's are usually continued for at least two years after surgery. Many seizure free patients ultimately get off of all AED's, but some require ongoing medications to maintain seizure control. Repeat neuropsychological assessment is performed at 6 months to one year post-operatively to determine if a resultant deficit or perhaps actual improvement have occurred.

## CONCLUSIONS

Surgical treatment of epilepsy should be considered in patients with disabling, medically intractable seizures, especially of focal origin. Up to one-half of medically intractable patients could potentially benefit from surgical treatment. Lesional related seizures and temporal lobe seizures respond best to surgical resection. Significant progressive psychosocial morbidity is associated with intractable recurrent seizures. This morbidity can be lessened and the ultimate out-



come best improved when surgical candidates are selected earlier in life as opposed to later.

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# Results of Temporal Lobectomy for the Treatment of Partial Complex Epilepsy

John Honeycutt, M.D.\*  
 Frederick A. Boop, M.D.\*  
 Victor Biton, M.D.\*\*

Gregory B. Sharp, M.D.\*\*\*  
 May L. Griebel, M.D.\*\*\*  
 Robert Galbraith, M.D.\*\*

## ABSTRACT

Epilepsy is the third most common cause of neurologic disability. The disease carries a 1% prevalence and a 3.5% lifetime risk. Seventy percent of patients can achieve good seizure control with medication. The remaining 30%, some 360,000 people across the United States, have intractable epilepsy and would benefit from evaluation at an epilepsy specialty center where surgical intervention is an option.

The following report reviews a series of 50 patients referred to the Arkansas Comprehensive Epilepsy Program for treatment of intractable complex partial epilepsy. In this series, we evaluate results of temporal lobectomy, commenting upon factors in the patients' histories which may influence their outcomes.

## INTRODUCTION

Epilepsy is one of the more common disorders seen by health care providers. It is estimated that epilepsy carries a 1% prevalence and a 3.5% lifetime risk.<sup>1,2</sup> Seventy percent of patients can achieve good seizure control with therapeutic doses of the available anticonvulsants.<sup>3</sup> The remaining 30%, some 360,000 people across the United States, have intractable seizures and would benefit from evaluation at an epilepsy specialty center.<sup>4</sup> Some, not pharmacologically controlled, may be candidates for surgical treatment, with an excellent record for rendering patients seizure free. Currently, it is estimated that each

year there are 5,000 new epileptics who could ultimately benefit from surgery, yet still less than 1,000 surgeries per year are being performed in our country. In April of 1990, experts in the surgical management of epilepsy presented data to a select panel at the National Institute of Health. This resulted in the development of a consensus statement regarding the efficacy of surgery for the control of seizures. Although the benefit of epilepsy surgery was realized, it was felt that more large-scale studies were necessary to analyze factors related to the development of chronic seizure disorders, to standardize the definition of intractable epilepsy, and to ascertain optimal surgery for the control of specific seizure types.<sup>7</sup> The following report reviews a contemporary series of patients referred to the Arkansas Comprehensive Epilepsy Program for evaluation and treatment of intractable complex partial epilepsy. In this series we outline our approach to patients with intractable epilepsy, evaluate results of temporal lobectomy, and comment upon factors in the patients' histories which may influence their outcomes.

## MATERIALS AND METHODS

Fifty consecutive patients undergoing temporal lobectomy through the Arkansas Comprehensive Epilepsy Program (ACEP) between March 1990 and March 1994 were the subjects of this study. All patients had a minimum of 6 months of post-operative follow-up in order to ascertain surgical efficacy. The mean length of follow-up was 26.7 months. The cohort consisted of 29 males and 21 females ranging in age from 1 to 57 years (Table 1). The average age of seizure onset was 13.2 years and the average age at the time of surgery was 28 years. The average duration of intractable epilepsy was, therefore, 15 years.

All patients were admitted to one of four epilepsy monitoring units (University of Arkansas for Medical

\* John Honeycutt, M.D. and Frederick A. Boop, M.D., are with the Department of Neurosurgery, University of Arkansas for Medical Sciences, Little Rock, Arkansas.

\*\* Victor Biton, M.D. and Robert Galbraith, M.D., are with the Arkansas Epilepsy Program, Baptist Medical Center, Little Rock, Arkansas.

\*\*\* Gregory B. Sharp, M.D. and May L. Griebel, M.D., are with the Department of Pediatrics, Department of Neurology University of Arkansas for Medical Sciences and Arkansas Children's Hospital, Little Rock, Arkansas.

Sciences, Arkansas Children's Hospital, and McClellan Veteran's Hospital) where they underwent continuous 24-hour video EEG monitoring using surface and/or sphenoidal electrodes. During this time, an effort was made to capture several typical ictal events. In general, the patients had failed to have their seizures controlled by at least three major anticonvulsants, either as monotherapy or in combination, before being deemed medically intractable. Two of the younger patients with brain tumors had failed only one anticonvulsant trial. Those patients who were non-compliant underwent counseling and reform prior to being considered for surgery.

As part of their presurgical evaluation, patients had a complete neuropsychological profile looking for discreet regions of brain dysfunction. Computerized tomography (CT) or magnetic resonance imaging (MRI), intracarotid amobarbital (WADA) testing, and, in many cases, angiography were performed to help identify focal abnormalities. More recently, positron emission tomography (PET) or single photon emission tomography (SPECT) scans have provided useful adjuncts to ictal localization, identifying areas of focal metabolic derangements.<sup>3</sup> The decision for surgery was based upon converging lines of evidence among the behavioral tests, the radiographic information and the neurophysiological data of recorded ictal and interictal events. Those patients in whom ictal lateralization could not be achieved by scalp recording underwent stereotactic placement of depth electrodes. Those patients with ictal foci near eloquent areas underwent placement of subdural electrode arrays (SEA) to both precisely define epileptogenic cortex and to perform functional cortical mapping (identifying speech areas, motor areas, etc.) for surgical planning.

Upon completion of the evaluation, each patient was presented to a surgical committee whereupon further treatment decisions were made. At the time of surgery, all patients underwent intraoperative electrocorticography both prior to and after the temporal lobe resection. In many instances, intraoperative electrocorticography led to further resection, improving post-resection recordings. Post-operatively, anticonvulsant dosages were adjusted to approximate preoperative blood levels. Medications were typically left unchanged following surgery for a least one year unless toxic side effects were reported. Post-surgical follow-up was attained at six weeks, three months, six months and yearly thereafter, with additional visits as indicated. Neuropsychological testing was repeated at 6-12 months post-operative (Table 5), and usually demonstrated minor improvement. Two patients who failed their first surgical attempt at seizure control returned for further resection but their numbers are too small and their follow-up too brief to

allow assessment of outcome. For the purposes of this study, these few patients are considered as surgical failures.

## RESULTS

Outcome was scored according to the classification system set forth by Engle<sup>4</sup> (Table 2). In this regard, Class 1 patients were seizure free at follow-up. Class 2 patients were nearly seizure free (no greater than 3 seizures per year). Class 3 patients had worthwhile improvement. Class 4 patients were either unimproved or worsened by their procedure. Data analysis revealed that 36/50 (72%) of patients were Engle Class 1, that is, seizure free. Another 11 (21%) were Engle Class 2, or nearly seizure free, and 3 (6%) fell into Engle Class 3. One patient showed no benefit from surgery (Engle Class IV). No patients in the series were made worse by the procedure.

Surgical complications are summarized in Table 3. One patient suffered a minor stroke during the preoperative WADA test which affected expressive speech. Over six months time, his speech completely recovered, he underwent temporal lobectomy, and is now seizure-free. Two patients developed wound infections requiring craniectomy, antibiotics, and subsequent cranioplasty. One of these had had pressure equalization (P.E.) tubes placed for a radiation-induced serous otitis media and drained cerebrospinal fluid through her ear canal for several days post-operatively, contaminating the bone flap. In both of these patients, the infections cleared without consequence. Neither patient developed meningitis. One patient, having undergone a left temporal lobectomy, has developed clinically significant short-term memory loss. This is a school age child who has had to have special tutoring because of poor memory. Three patients undergoing left temporal lobectomies developed transient speech deficits in the immediate post-operative period, but all had complete return of speech function within a month of surgery.

Pathology of the excised tissue was examined in each case (Table 4). Mesial temporal sclerosis was the most common diagnosis, occurring in 25 patients (50%). No significant pathology was found in 16 cases (32%). Twelve patients (24%) harbored tumors of various types, the most common of which was low grade glioma. One patient had an arteriovenous malformation (AVM) within the temporal lobe.

## DISCUSSION

In the first half of this century, epilepsy surgery was performed on the basis of scalp recording alone and surgery under local anesthesia allowed intraoperative functional mapping. Improved techniques now allow surgery under general anesthesia leading to a shorter operating time and better patient



tolerance of the procedure. Cortical mapping can now be performed on a chronic basis utilizing indwelling electrodes. This allows mapping to be duplicated on separate days to confirm accuracy of functional localization as well as permitting resection based upon recorded ictal events in addition to interictal fields. The functional mapping allows for more aggressive resection of epileptogenic brain without the risk of increasing a patient's neurological deficit. In our SEA series, mean temporal resections were 6.5 cm. with a maximum of 9 cm., whereas without the mapping, the resection would have been limited to 4.5 cm.

Depth electrodes were placed when ictal onset was obscured by movement artifact or when the seizure as seen on video EEG began well before the electrical abnormality was recorded from the scalp. These electrodes are stereotactically placed under MRI guidance. Experience has taught us to check preoperative bleeding times in all patients on high dose antiepileptic drugs, particularly valproic acid, recognizing that such medications can predispose to hemorrhagic complications. In this series, we have not had bleeding complications from temporal lobectomy nor from invasive monitoring, but in another series, we have had two patients develop extra-axial hematomas postoperatively which required surgical evacuation.

Patients requiring invasive monitoring did not have as good an outcome as did the non-invasive group. Only 57% of these patients were seizure-free following surgery as compared to 78% in the non-invasive group. However, the patients requiring invasive monitoring were a particularly refractory group, frequently with bilateral temporal electrical abnormalities, many of whom would not have been considered for surgery in years past. Improved video EEG and, more recently, functional imaging have now allowed the relationship of the seizure focus to eloquent cortex to be more accurately defined, permitting safer resection.<sup>5</sup>

The relationship between focal pathology and surgical outcome is well described.<sup>6</sup> In cases of tumor or arteriovenous malformation, there is focal pathology imposed upon an otherwise normal brain. Once removed, the prognosis for seizure control is greatest. It should be emphasized that these patients were treated surgically as epilepsy patients rather than as tumor patients, which entailed temporal lobectomy inclusive of the pathological lesion rather than lesionectomy alone. Surgical series in which lesionectomy alone was performed document a 50-60% chance for seizure control when the temporal lobe is involved, whereas 10/11 (91 %) of the patients in this study harboring a temporal lobe lesion were seizure free at follow-up.

Mesial temporal sclerosis, although a focal pro-

cess, may be unilateral or bilateral. In our series, this group had no different outcome than the group with no pathological diagnosis. Had we subjected those with no specific pathology to detailed hippocampal cell counts, we suspect MTS would have been discovered in many more instances. Furthermore, many of our patients had the hippocampus resected by suction with no remaining mesial structures available for pathological analysis. Still, MTS was the most common pathologic diagnosis in the series.

Many authors have looked at predictors of outcome.<sup>7</sup> As in our study, a family history of epilepsy does not seem to influence surgical outcome. Nor does a history of febrile convulsions. The duration of epilepsy did not predict outcome in our patients even though other authors have shown a significant correlation between length of intractability and chances for seizure control. This variable may be influenced by patients with tumors, in whom neuroimaging studies lead to early diagnosis and surgery. As we have stated, patients presenting with tumors and complex partial seizures have the greatest likelihood of being seizure-free following surgery. We found no significance in duration of seizures as an independent variable.

The average duration of intractable epilepsy in our series is 15 years. This is in part because many of the patients were able to achieve seizure control medically for several years before developing intractable epilepsy; however, a surprising number of patients were under the misconception that they would outgrow their seizure disorder. Regardless, most had not previously been considered for surgical treatment.

It is worthwhile reviewing briefly what medical intractability is, and who should be considered for surgery. Controversy exists over the precise definition of medical intractability, given that there will always be exceptions to the rule. Most epileptologists would agree that if a patient with complex partial seizures of temporal lobe origin has failed a therapeutic trial (with documented serum levels) of three unrelated anticonvulsants, that they are unlikely to achieve medical control, defined as being seizure-free. The definition of intractability must take into account the impact of the seizures upon the individual. For example, one seizure per year may be unacceptable for the professional who, by law, is unable to drive because of it, whereas one seizure per day may not alter the lifestyle of the severely handicapped, institutionalized individual. One must also consider the toxic effects of high dose medications and continued seizures which may interfere with the functional ability of someone working or in school, but less to the person in a total care setting.

We recommend that if a person afflicted with complex partial epilepsy is not seizure free in the hands

of an experienced neurologist within a year, that the patient be referred to an epilepsy specialty center to consider the therapeutic options, including surgery. Any person who can describe an aura (warning feeling that a seizure is about to occur) probably has partial, or focal onset epilepsy. If the seizure begins with a motionless stare, smacking of the lips, or automatic hand motions such as picking at their clothes, it is likely to be of temporal lobe origin.

Although there appears to be little correlation between the duration of epilepsy and the chances of becoming seizure free following surgery, the inability to drive, the inability to maintain a job, and the social stigmata associated with epilepsy make psychosocial re-integration more difficult the longer the individual has suffered.<sup>8</sup>

## CONCLUSIONS

Surgery for the treatment of epilepsy has proven itself a useful adjunct for more than forty years. It is by no means experimental. The medical literature is replete with case series demonstrating highly beneficial long-term results with minimal morbidity.<sup>9,10</sup> Our study, as do others, points out that most of our patients were not referred to a specialty center until midlife despite seizure onset in childhood. Those

patients harboring focal structural abnormalities associated with their seizures have the best prognosis for seizure control. Those with more diffuse brain pathologies do less well. Patients in whom the epileptic focus can be determined by scalp recordings alone have the best prognosis, but current technological advances such as functional imaging and subdural electrodes now permit safe resections in patients who would not have been deemed surgical candidates a decade ago.

Since temporal lobe epilepsy is controllable in the vast majority of cases, we propose that patients in whom seizures are not brought under complete control within a year be referred to a specialty center where surgery is an option. Early seizure control may offer these individuals a better opportunity for social re-integration and a normal life.

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**RADIOLOGY  
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**TABLE 1**  
**DEMOGRAPHICS**

<u>FACTOR</u>	<u>AVERAGE</u>
Length of follow-up	26.7 months
Age at onset	13.2 years
Age at surgery	28.0 years
Duration of epilepsy	15.2 years
Side of surgery	L=29, R=21

**TABLE 2**  
**CLASSIFICATION BY OUTCOME**

Class 1 - Seizure Free  
36/50 (72%)

- 1) Completely seizure free since surgery
- 2) Auras only
- 3) Some early post-operative seizures, but then seizure free
- 4) Atypical seizure only during drug withdrawal

Class 2 - Almost Seizure Free  
11/50 (21%)

- 1) Initially seizure free but now rare seizures
- 2) Rare seizures since surgery
- 3) More than rare seizures since surgery, but rare seizures for at least two years
- 4) Nocturnal seizures only which cause no disability

Class 3 - Worthwhile Improvement  
3/50 (6%)

- 1) Worthwhile reduction
- 2) Prolonged seizure free interval amounting to but not greater than half the follow-up period, but not less than two years

Class 4 - No Worthwhile Improvement  
1/50 (2%)

- 1) No significant seizure reduction
- 2) No appreciable change
- 3) Seizures worse

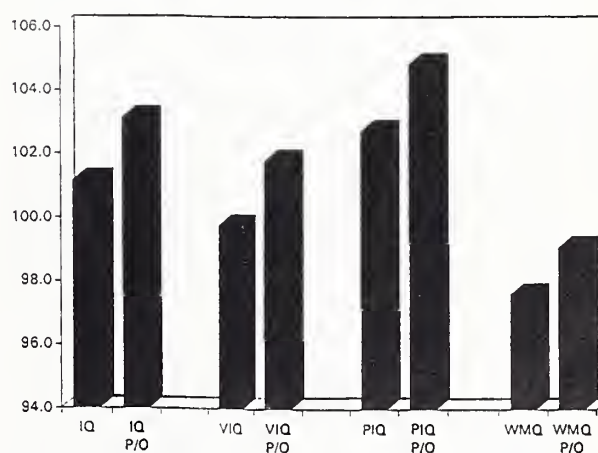
**TABLE 3**  
**COMPLICATIONS**

Mortality	0	
Morbidity	Transient	Permanent
Infection	N=2(4%)	
Chemical Meningitis	N=3(6%)	
Quadrantanopsia		N= 1 (2%)
Aphasia	N=3(6%)	
Stroke	N=1 (2%)	
Memory Loss		N=1(2%)
Total	N=9(18%)	N=4%

**TABLE 4**  
**PATHOLOGY**

Tumor/AVM 13 (26%)  
MTS (Mesial Temporal Sclerosis) 25 (50%)  
NPA (No Pathologic Abnormality) 12 (24%)

**TABLE 5**  
Preoperative versus Post-operative  
Neuropsychological Performance



IQ=full scale intelligence quotient on WAIS. IQ P/O = the post-operative full scale IQ. VIQ = verbal intelligence quotient. VIQ P/O = post-operative verbal IQ. PIQ = post-operative performance IQ. WMQ = wechsler memory quotient. WMQ P/O = post-operative wechsler memory quotient.



### TISSUE PLASMINOGEN ACTIVATOR

Tissue plasminogen activator (t-PA) is a naturally occurring molecule which dissolves spontaneously occurring thrombi. It was described in 1947 and isolated from uterine tissue in 1979. t-PA consists of 527 amino acids, is synthesized and secreted by endothelial cells, undergoes hepatic metabolism, and has a plasma half-life of three to four minutes. t-PA is manufactured under the brand name Activase® (Alteplase, Genentech, Inc., South San Francisco, CA) and Actilyse® (Alteplase rt-PA, dutaplast, Boehringer Ingelheim, Research Triangle, NC). Both compounds have similar chemical structures, Alteplase® is predominantly a single chain preparation and Actilyse® is the double chain version. Both agents are pharmacologically (animal studies) and biochemically equivalent. Direct clinical comparison of the agents has not been performed, yet the similar chemical structure indicates that minimal, if any, clinical difference is likely to exist.

This issue of CCU will review ongoing and recently completed clinical trials of t-PA in the treatment of acute myocardial infarction (AMI) and coronary intervention.

### NOVEL DOSING REGIMENS IN ACUTE MYOCARDIAL INFARCTION

There are two new dosing schedules of t-PA used in the treatment of AMI. First, is accelerated dosing (front loaded) administration of t-PA. In this regimen, the standard 100mg dose of t-PA is given over 90 minutes (15 mg bolus; 0.75 mg/kg over 30 min, not to exceed 50 mg; then 0.5 mg/kg up to 35 mg over the next 60 minutes), versus three hours. The goal of accelerated dosing is to maximize patency and flow in the infarct related artery. Several recently published clinical trials have noted improved 60 to 90 minute patency with accelerated dosing compared to the standard 100 mg over 3 hours. (Table 1.)<sup>1,2,3</sup> The recently completed GUSTO (Global Utilization of

Streptokinase and Tissue Plasminogen Activator for Occluded Coronary Arteries) trial compared this dosing regimen to streptokinase (either with intravenous or subcutaneous heparin) or t-PA plus streptokinase.<sup>4</sup> The accelerated dosing schedule resulted in a 1% improvement in survival (an additional 10 lives saved per 1,000 patients treated) at 30 days (Figure 1). This survival benefit was due to improved patency and flow with t-PA compared to either streptokinase or combination regimen (Figure 2).<sup>2</sup>

### DOUBLE BOLUS

In an effort to further enhance patency and ease of administration, a phase III trial of double bolus t-PA (50 mg initially followed by a second 50 mg dose given 30 minutes later) is ongoing. The "Double Bolus" trial is scheduled to be completed in late December 1994 and will have enrolled 450 patients. A pilot trial of this dosing schedule noted a 91% patency rate at 60 minutes.<sup>3</sup>

### INTRACORONARY t-PA

In the late 1980's, AMI was treated with intracoronary administration of either streptokinase or urokinase. Since then, the treatment of AMI with thrombolytic therapy has shifted from intracoronary to intravenous administration in an effort to treat patients other than those who present to hospitals equipped with cardiac catheterization facilities. Intracoronary use of thrombolytic therapy is now used in adjunctive management with PTCA.

A phase II dosing trial of intracoronary t-PA is in progress. There are five dosing regimens tested in this trial, varying from bolus alone (20 mg/2 min) to high dose, prolonged infusion (40 mg/40 min). The primary endpoint is reduction in thrombus size from baseline to 60 minutes post administration. Nearly one hundred patients are enrolled, with a total population size of 150. Possible further studies include comparison of the "best" dose of t-PA (defined by



this trial) to urokinase, PTCA or direct intrathrombus administration of a thrombolytic agent.

t-PA IN SAPHENOUS VEIN GRAFTS

Percutaneous revascularization of degenerating vein grafts is frequently complicated by acute ischemic complications. These mechanical problems are due to thrombus in the graft. A prospective phase II trial of 50 mg of t-PA given over 40 minutes into the ostium of vein graft more than 12 months old with early degenerative change, is soon to begin. t-PA will be given prior to percutaneous mechanical intervention. The primary endpoint will be procedural success without ischemic complications (death, non-fatal AMI, abrupt closure, distal embolization, or recurrent ischemia requiring repeat catheterization, mechanical intervention, or placement of an intraaortic balloon pump).

SECOND GENERATION t-PA

The current formulation of t-PA is a semi-selective plasminogen activator. Approximately 90% of the biological activity t-PA is due to local clot bound activation of plasminogen, however, 10% spills over into the systemic circulation. Currently available non-selective agents (streptokinase, urokinase and APSAC), activate circulating and fibrin-bound plasminogen and thereby dissolve thrombi. Second generation t-PA will have increased local activity with a shorter half life. This agent is soon to undergo clinical evaluation in safety and dosing studies.

CONCLUSION

Among the currently available thrombolytic agents, t-PA provides the highest velocity of patency and flow in the infarct related artery. Rapid patency is linked to improved left ventricular function and long term survival. t-PA is currently being evaluated in novel formulations, along with modifications in dosing regiments and being investigated in native vessels and degenerated saphenous veins.

The next issue of CCU will discuss a patient with primary amyloidosis.

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Table 1

	t-PA 100 mg/3 hours <sup>1</sup>	t-PA 100 mg/90 min <sup>1,2</sup>	t-PA 100 mg, 50 mg bolus then 50 mg in 30 min <sup>1</sup>
Patency 60 min	63%	76%	91%
Patency 90 min	77%	81%	93%

References: 1,2,3

Note: Patency is defined as Thrombolysis and Myocardial Infarction (TIMI) flow 2 + 3.

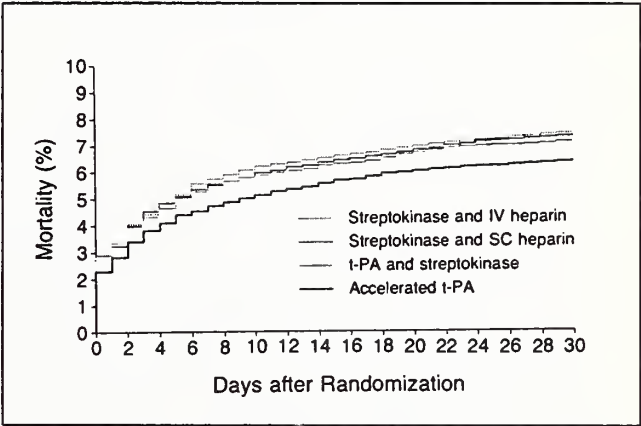


Figure 1. Thirty day survival curves from the GUSTO (Global Utilization of Streptokinase and Tissue Plasminogen Activator for Occluded Coronary Arteries) Trial. Notice that survival is improved with t-PA when given in its accelerated, front loaded, dosing regimen. From: The GUSTO Investigators. A global randomized trial of aggressive versus standard thrombolytic strategies in 41,021 patients with acute myocardial infarction. N Engl J Med 1993;329:673-682 with permission.

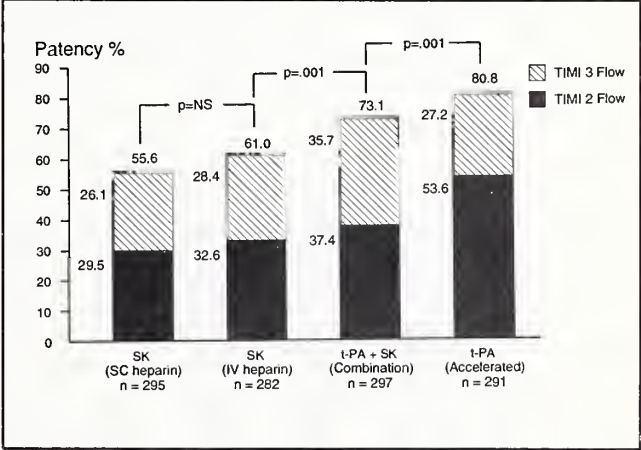


Figure 2. Improved angiographic patency is seen with the accelerated dose of t-PA, compared to streptokinase (with subcutaneous or intravenous heparin), or a combination of t-PA and streptokinase. Figure courtesy of Genetech, Inc., South San Francisco, CA.

# Outdoor MD

Information provided by  
the Arkansas Game & Fish Commission

## VENISON MAKES A GREAT MEAL

With deer season open, thousands of Arkansas families have and will have a good supply of fresh meat at hand this season.

It's good meat. Venison is much lower than beef or pork in fat and cholesterol. That's beneficial from a health standpoint, but it also means venison takes special handling because of its leanness to prevent drying out in cooking. Here are four varied but basic ideas for venison dishes, each adaptable to individual tastes and preferences:

**Swiss venison** - Cut 2 to 3 pounds of venison steak into cubes. Put a baking bag in a crockery-type cooker then add meat, 1 chopped onion and 1 chopped green pepper. Mix a package of Swiss steak seasoning mix with 1/2 cup water and pour over the meat and vegetables. Close bag with a twist tie and poke several holes in the top for steam to escape. Cook at low setting for 8 hours. Cook a package of wide egg noodles then serve the meat mixture with gravy over the noodles. Cooked white or brown rice or spaghetti can be substituted for the noodles.

**Venison chili** - Brown two pounds of ground venison, breaking it apart as it cooks. Drain. Mix in 1 large chopped onion, 1 large chopped bell pepper, 2 cans stewed tomatoes, 1 can Rotel tomatoes with green chili peppers, 1 cup water and 1 envelope chili seasoning mix. Simmer on low heat 2 hours then add 2 cans kidney beans or red beans. Simmer 1 more hour. Some chili fans insist on black coffee as an ingredient; it can substitute for the water.

**Venison stir fry** - Mix 1/2 teaspoon ground ginger or grated fresh ginger root with 2 tablespoons red wine, 1/4 teaspoon garlic powder, 1 teaspoon sugar, 2 teaspoons soy sauce and 2 tablespoons peanut oil. Thinly slice venison tenderloin into strips and marinate several hours. Heat cooking oil in a wok or large skillet then stir fry 2 cups of broccoli, broken into small flowerets, with 1 cup sliced or chopped onion for 3 minutes. Remove then stir fry the drained venison until the red color is gone. Stir 2 teaspoons corn starch into marinade, return vegetables to pan and mix meat and vegetables with marinade. Serve over rice.

**Venison salami** - Thoroughly mix 5 pounds ground venison with 2 teaspoons liquid smoke flavoring, 2 teaspoons coarse ground pepper, 4 tablespoons curing salt, 1 teaspoon mustard seed and 1 teaspoon garlic powder. Refrigerate for 3 days, kneading the mixture for several minutes each day. On the fourth day, form the mixture into firmly packed rolls about 2 inches in diameter. Place in a baking dish on the oven rack and bake at low (160-170) degrees) temperature about 9 hours. Cool, wrap in wax paper and refrigerate. It's ready to eat on sandwiches or crackers.

**Quick venison supper** - Slice venison tenderloin into strips and brown quickly in hot cooking oil. Drain the oil, lower the heat, add a can of undiluted mushroom soup and simmer until fork tender. Variations can be sliced or chopped onions and green peppers.



## IT JUST TAKES A PHONE CALL TO BUY YOUR HUNTING LICENSE

It's not too late to join in the fun, and if you are pressed for time you can always buy your licenses with a free phone call. Licenses can be charged to MasterCard or Visa by phoning 1-800-364-GAME. In the Little Rock area, call 223-6349.

The basic hunting license is officially the Wildlife Conservation License and costs \$10.50. It allows you to take one deer with a modern gun and to hunt all small game except furbearers. An option is the \$25 Sportsman's Permit which covers all forms of Arkansas hunting for residents except \$7 state and \$15 federal duck stamps needed for waterfowl hunting. Another option is the \$35.50 combination license, which covers all forms of hunting and sport fishing except duck stamps and the \$5 trout permit. All licenses are valid for one year from the date of purchase, and duck stamps expire June 30, 1995.

## ONLY STEEL SHOT CAN BE USED FOR DUCKS AND GEESE

When and where do you have to use steel shot? All the time and everywhere if you are hunting waterfowl - ducks and geese.

Steel shot is required by federal regulations over all the United States and by state regulations in Arkansas. Waterfowl hunters may not have lead shot in their possession during duck or goose hunting. Wildlife officers interpret this as not having any lead loads on the hunter's person, in the blind or within reasonable access.

Should waterfowl hunters want to also hunt squirrel, swamp rabbits or other non-waterfowl game on a duck or goose outing, they must do it with steel shot loads.

## ESTIMATING DEER'S WEIGHT IN THE FIELD

Weighing most often comes after field dressing. On an average deer, field dressing removes about 22 percent of the live weight. Example: a field dressed deer carcass weighing 101 pounds would mean the deer alive weighed 130 pounds.

## A Look Outdoors

**JANUARY 11-22**

Marine Expo '95 boating and fishing show, Little Rock Expo Center, Interstate 30. For information, call 376-2312.

**JANUARY 27-29**

Buck-A-Rama hunting and wildlife show, Little Rock Expo Center, Interstate 30. For information, call 982-4851.



**Grant Announcement**  
**Rural Physician Incentive Program, Act 763 of 1993**  
**Application Deadline: December 15, 1994**

Governor Tucker recently approved the release of \$300,000 into the Rural Physician Incentive Program, Act 763 of 1993 to sustain those physicians currently on the program and to accept a limited number of new physicians. This initiative was created to establish a program of financial assistance to encourage physicians to locate in and remain in the practice of family medicine in an Arkansas rural community having a population of 15,000 or less, and in a health professional shortage area (01 or 02 designation) or a medically underserved area as designated by the U.S. Department of Health and Human Services.

In order to enhance the retention as well as the recruitment of physicians in rural communities, physicians will be awarded grants totaling \$50,000 over a five year period for continuous service in a qualifying full-time practice in the same rural community. Payments are made in the following allocations:

Year 1	\$ 6,000
Year 2	\$ 8,000
Year 3	\$10,000
Year 4	\$12,000
Year 5	\$14,000

The physician must be a newly established physician (less than three years), practicing a minimum of thirty-two hours a week, serving Medicaid patients, and willing to work within an existing health care system. Grants are awarded on the basis of available funds with priority given to rural communities having the greatest need.

Physicians interested in receiving an application should contact:

Veronica Smith  
Office of Rural Health  
Arkansas Department of Health  
4815 West Markham, Slot 22  
Little Rock, Arkansas 72205  
(501) 661-2622

The deadline for submitting an application is December 15, 1994.

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Stanley D. Teeter, M.D., President  
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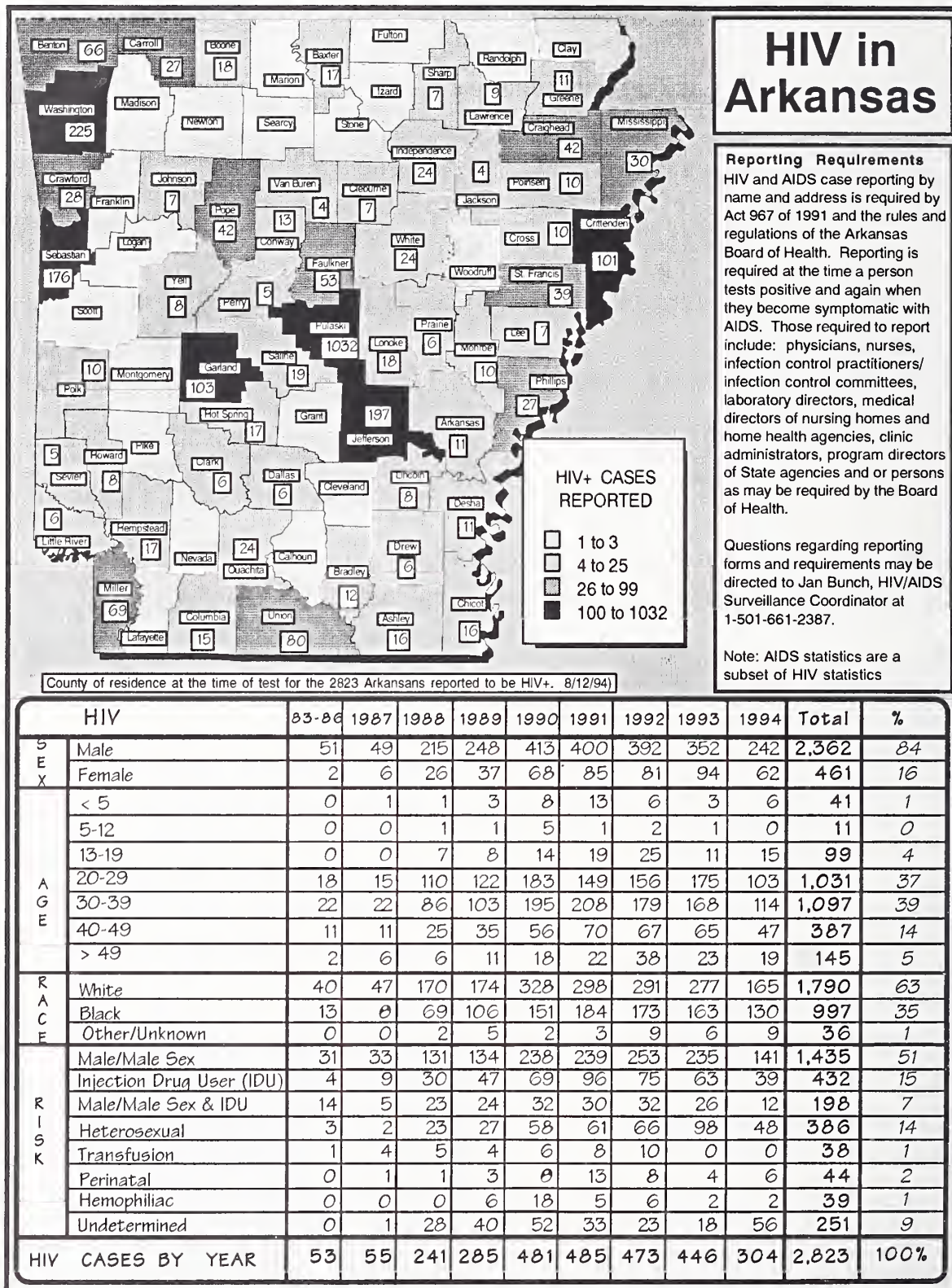
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**ARKANSAS - Partnership opportunity!** BC/BE pediatrician needed to join busy, established practice. Solid referral pattern, new office adjacent to well-equipped hospital (Level II nursery). Two-year guarantee, comprehensive benefits. University, great schools, affordable housing, 1 hour to major metro. Call or send C.V. to Jane Vogt, 800-765-3055, 222 S. Central, Suite 700, St. Louis, MO 63105, FAX 314-726-3009.

# Arkansas HIV/AIDS Report

## 1983-1994



Source: AIDS Surveillance Unit, Arkansas Department of Health.



# Arkansas HIV/AIDS Report

## 1983-1994

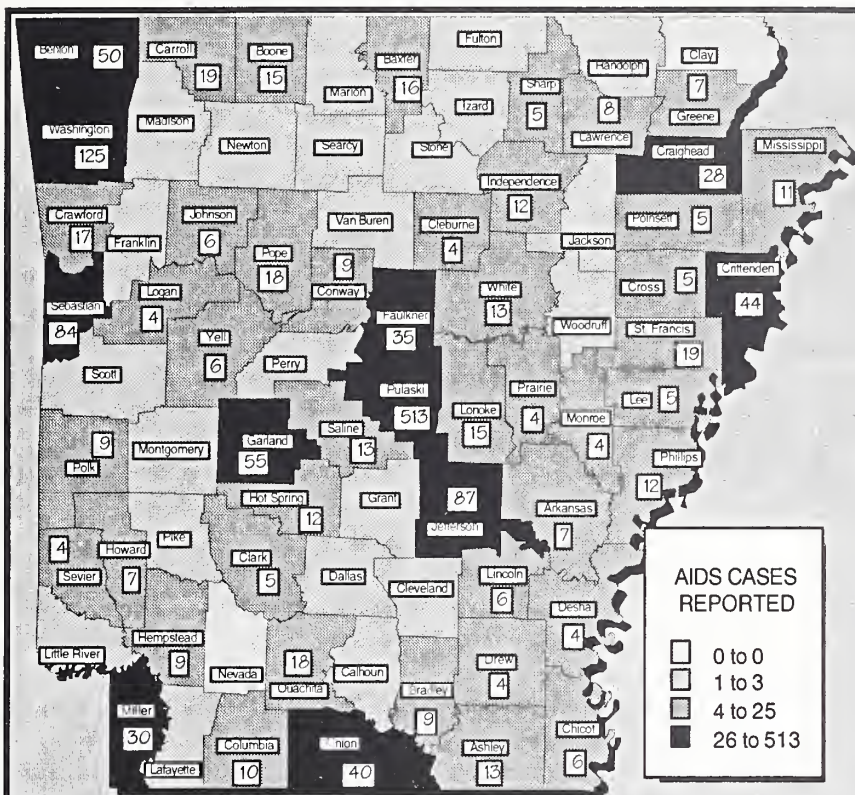
### AIDS in Arkansas

#### Reporting Requirements

HIV and AIDS case reporting by name and address is required by Act 967 of 1991 and the rules and regulations of the Arkansas Board of Health. Reporting is required at the time a person tests positive and again when they become symptomatic with AIDS. Those required to report include: physicians, nurses, infection control practitioners/infection control committees, laboratory directors, medical directors of nursing homes and home health agencies, clinic administrators, program directors of State agencies and or persons as may be required by the Board of Health.

Questions regarding reporting forms and requirements may be directed to Jan Bunch, HIV/AIDS Surveillance Coordinator at 1-501-661-2387.

Note: AIDS statistics are a subset of HIV statistics



Of the 2823 Arkansans reported to be HIV+, 1518 have been diagnosed with AIDS. 8/15/94

AIDS		83-86	1987	1988	1989	1990	1991	1992	1993	1994	Total	%
SEX	Male	39	46	77	70	170	176	250	336	158	1,322	87
	Female	1	4	6	10	20	25	35	64	31	196	13
AGE	< 5	0	0	1	1	6	6	3	2	0	19	1
	5-12	0	0	1	0	1	1	0	1	0	4	0
	13-19	0	0	0	0	4	3	2	4	2	15	1
	20-29	16	15	27	24	55	57	81	110	43	428	28
	30-39	16	23	36	41	78	80	128	178	88	668	44
	40-49	7	0	10	7	35	41	52	78	38	276	18
	> 49	1	4	8	7	11	13	19	27	18	108	7
RACE	White	31	43	61	58	141	134	206	275	118	1067	70
	Black	9	7	20	21	47	66	75	121	69	435	29
	Other/Unknown	0	0	2	1	2	1	4	4	2	16	1
RISK	Male/Male Sex	24	31	59	50	121	120	182	237	104	928	61
	Injection Drug User (IDU)	2	10	4	11	18	29	45	70	31	220	14
	Male/Male Sex & IDU	12	4	6	6	18	17	21	26	12	122	8
	Heterosexual	2	3	3	7	11	12	24	52	29	143	9
	Transfusion	0	2	7	3	7	11	3	2	2	37	2
	Perinatal	0	0	1	1	6	6	3	3	0	20	1
	Hemophiliac	0	0	1	1	5	5	4	5	5	26	2
	Undetermined	0	0	2	1	4	1	3	5	6	22	1
AIDS CASES BY YEAR		40	50	83	80	190	201	285	400	189	1,518	100%

Source: AIDS Surveillance Unit, Arkansas Department of Health.

# New Members

---

## BLYTHEVILLE

**Shahriari, Sia**, OB/GYN. Medical education, University of Missouri, Columbia, 1977. Internship/Residency, University of California, Irvine, 1981. Board certified.

## EL DORADO

**Arceneaux, Matthew S.**, Anesthesiology. Medical education, University of Texas Medical Branch, Galveston, 1990. Internship/Residency, University of Texas Medical Branch, 1994.

## FORT SMITH

**Ezell, Gerry D.**, Internal Medicine. Medical education, University of Arkansas for Medical Sciences, Little Rock, 1985. Internship, Pensacola Naval Hospital, Florida, 1986. Residency, Portsmouth Naval Hospital, Virginia, 1992. Board certified.

## HARRISON

**Hope, John M.**, Ophthalmology. Medical education, Temple University School of Medicine, Philadelphia, 1975. Internship, Walter Reed Army Medical Center, 1976. Residency, Brooke Army Medical Center, 1980. Board certified.

## JONESBORO

**Kyle, Richard S.**, Neurosurgery. Medical education, University of Arkansas School of Medicine, 1987. Internship/Residency, University of Miami, 1994.

## LITTLE ROCK

**Dyleski, Robin A.**, Otolaryngology. Medical education, University of Southern California, Los Angeles, 1988. Internship, Loyola University Medical Center, Maywood, Ill., 1989. Residency, LAC-USC Medical Center, Los Angeles, Calif., 1994.

**Talley, J. David**, Interventional Cardiologist. Medical education, University of Louisville, Kentucky, 1980. Internship, University of Louisville Hospitals, 1981. Residency, Emory University Affiliated Hospitals, 1983. Fellowship, Emory University School of Medicine, 1987. Board certified.

**Wright, Gary D.**, Emergency Medicine. Medical education, University of Arkansas for Medical Sciences, Little Rock, 1988. Internship/Residency, Orlando Regional Medical Center, 1991. Board certified.

## PARIS

**Hasan, Shahzad**, Internal Medicine. Medical education, Sind Medical College, Karachi, Pakistan, 1989. Internship, Brookdale Hospital, Brooklyn, New York, 1992. Residency, Central Texas Medical Foundation, Austin, 1994. Board pending.

## ROGERS

**David, Wendy S.**, Internal Medicine. Medical education, Indiana University Medical School, Indianapolis, 1988. Internship/Residency, Indiana University, 1991. Board certified.

**Mould, David C.**, Anesthesiology. Medical education, University of Kansas Medical School, Kansas City, Kansas, 1990. Internship/Residency, University of Kansas, 1994.

## RUSSELLVILLE

**Bell, Linda O.**, Psychiatry. Medical education, University of Arkansas for Medical Sciences, Little Rock, 1966. Internship, Arkansas Baptist Medical Center, 1967. Residency, University of Arkansas for Medical Sciences, 1970.

## WYNNE

**Ganelli, Ronald R.**, General Surgery. Medical education, College of Osteopathic Medicine & Surgery, Des Moines, Iowa, 1964. Internship/Residency, Metropolitan Hospital, Philadelphia, 1966. Residency, College of Medicine, New Jersey and JKK Cherry Hill Hospital, 1969. Board certified.

## OUT OF STATE

**Wade, Burke**, Urology. Medical education, University of Tennessee, Memphis, 1974. Internship, City of Memphis Hospitals, 1975. Residency, University of South Florida and University Medical Center, Jackson, Miss., 1980. Board certified.

## RESIDENTS

**Bayer, Ilene B.**, General Surgery. Medical education, University of Calgary, AB Canada, 1992. Internship, U.B.C., 1993. Residency, University of Alabama, Birmingham and UAMS.

**Habibipour, Saied**, Transitional. Medical education, Tehran University of Medical Sciences, Tehran, Iran, 1988. Internship, Tehran University of Medical Sciences, 1988. Residency, UAMS.



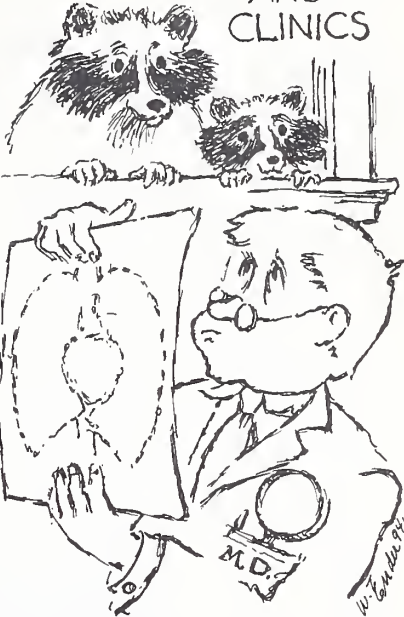
**Milligan, Lynda B.**, Family Practice. Medical education, University of Arkansas for Medical Sciences, 1994. Internship, UAMS.

**Schiefer, Mark A.**, Emergency Medicine/Toxicology. Medical education, University of Arkansas for Medical Sciences, Little Rock, 1990. Internship/Residency, UAMS.

**STUDENTS**

- Elemi J. Agbomi
- William B. Bailey
- Brian H. Blair
- Chad Braden
- Wade D. Brock
- Jennifer E. Burks
- Michael A. Chunn
- J. Kris Citty
- Tearani J. Galbreath
- Kay L. Kinneman
- Patricia E. Parmley
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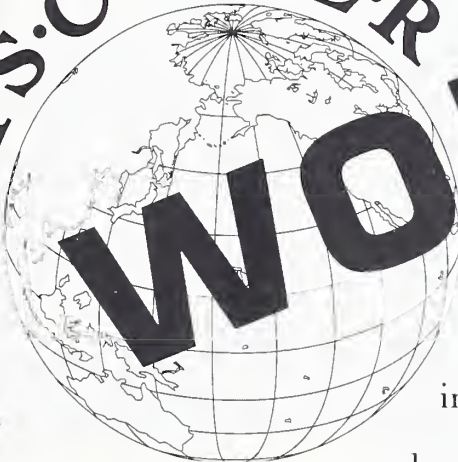


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## From now on, these are the questions you should ask before you outsource:

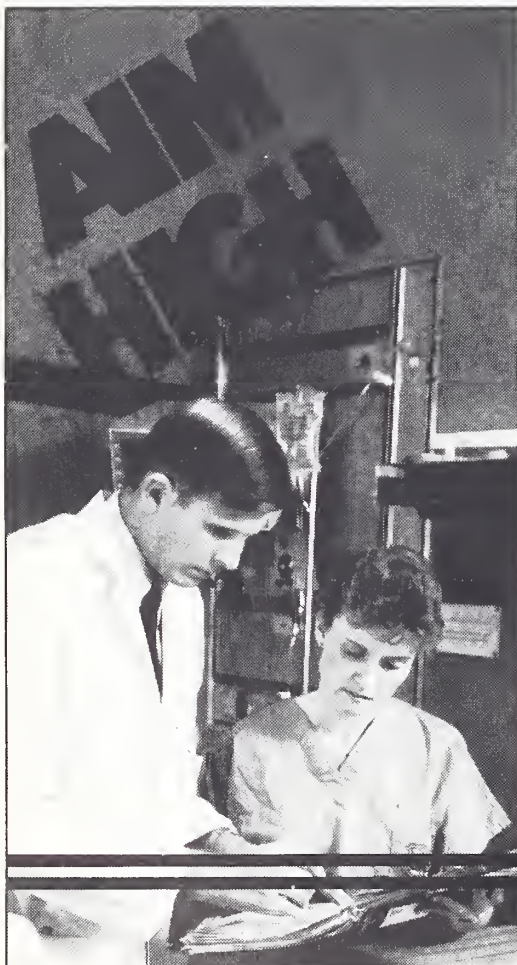
1. Does your vendor work together with you as if they were part of your program?
2. Can your vendor handle your everyday tasks automatically?
3. Is your vendor recognized as one of the best in their category?
4. Does your vendor have the experience to handle your changing needs?
5. Does your vendor have the ability to offer you a total or partial package depending upon your needs?
6. Does your vendor have these services: collections, billing, insurance follow-up, "early-out" programs, attorney services, coding, consulting.
7. Ultimately, is it worth getting a vendor that doesn't do all of these things for you?

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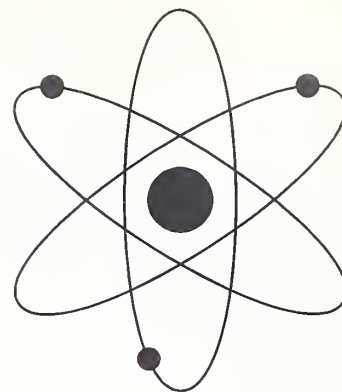
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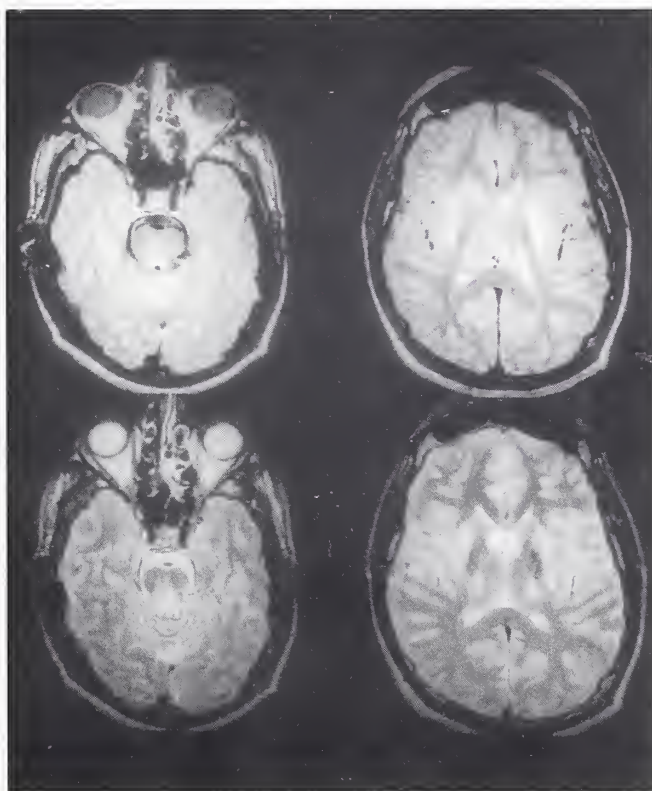
# Radiological Case of the Month



Steven R. Nokes, M.D.  
Elaine Wilson, M.D.  
Michael T. King, M.D.

## History:

This 29-year-old male presented with dysarthria and drooling. An MR scan of the brain was performed.



(Top Row) Proton density weighted MR images of the brain.  
(Bottom Row) T<sub>2</sub> weighted MR images of the brain.

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# Wilson's disease.

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## Findings:

The MRI reveals symmetric areas of abnormal increased signal intensity on spin density and T<sub>2</sub> weighting within the basal ganglia, thalami and periaqueductal gray matter.

## Discussion:

Symmetric lesions are often overlooked. Basal ganglia/thalamic high signal lesions can be seen in hypoxic encephalopathy (drowning, cardiac arrest), toxic encephalopathy (carbon monoxide, methanol, cyanide), internal cerebral vein thrombosis, and in multiple inherited disorders including Wilson's disease, Leigh disease and juvenile Huntington disease.

Wilson's disease (WD) is a rare treatable autosomal recessive disorder of copper metabolism caused by a lack of ceruloplasmin, the serum transport protein for copper. Abnormal copper deposition occurs in various tissues especially the liver, brain and cornea. WD is associated with degenerative changes in the basal ganglia and cirrhosis of the liver (hence the term hepatolenticular degeneration). Corneal copper deposits account for the Kayser-Fleischer rings.

Most affected patients become symptomatic between 5 and 30 years of age. Younger patients usually present with liver failure. Patients presenting with neurologic disease (as in our case) are typically in their late teens or twenties. The diagnosis is made with a serum ceruloplasmin assay or a 24 hour urinary copper examination. A slitlamp examination may be useful to look for the Kayser-Fleischer rings. A liver biopsy is rarely necessary.

After diagnosis, patients must receive anti-copper treatment for life. Penicillamine and zinc acetate are the most common therapeutic agents.

## References:

1. Brewer GJ, Yuzbasiyan-Gurkan V. Wilson disease. *Medicine* 1993; 71:139-164.
2. Roh JK, Lee TB, Wie BA, et al. Initial and follow-up brain MRI findings and correlation with the clinical course in Wilson's disease. *Neurology* 1994; 44:1064-1068.
3. Nazer H, Brizmar J, Al-Kanoi MZ, et al. Magnetic resonance imaging of the brain in Wilson's disease. *Neuroradiology* 1993; 35:130-133.

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*Editor: Steven R. Nokes, M.D. is affiliated with Radiology Consultants in Little Rock.*

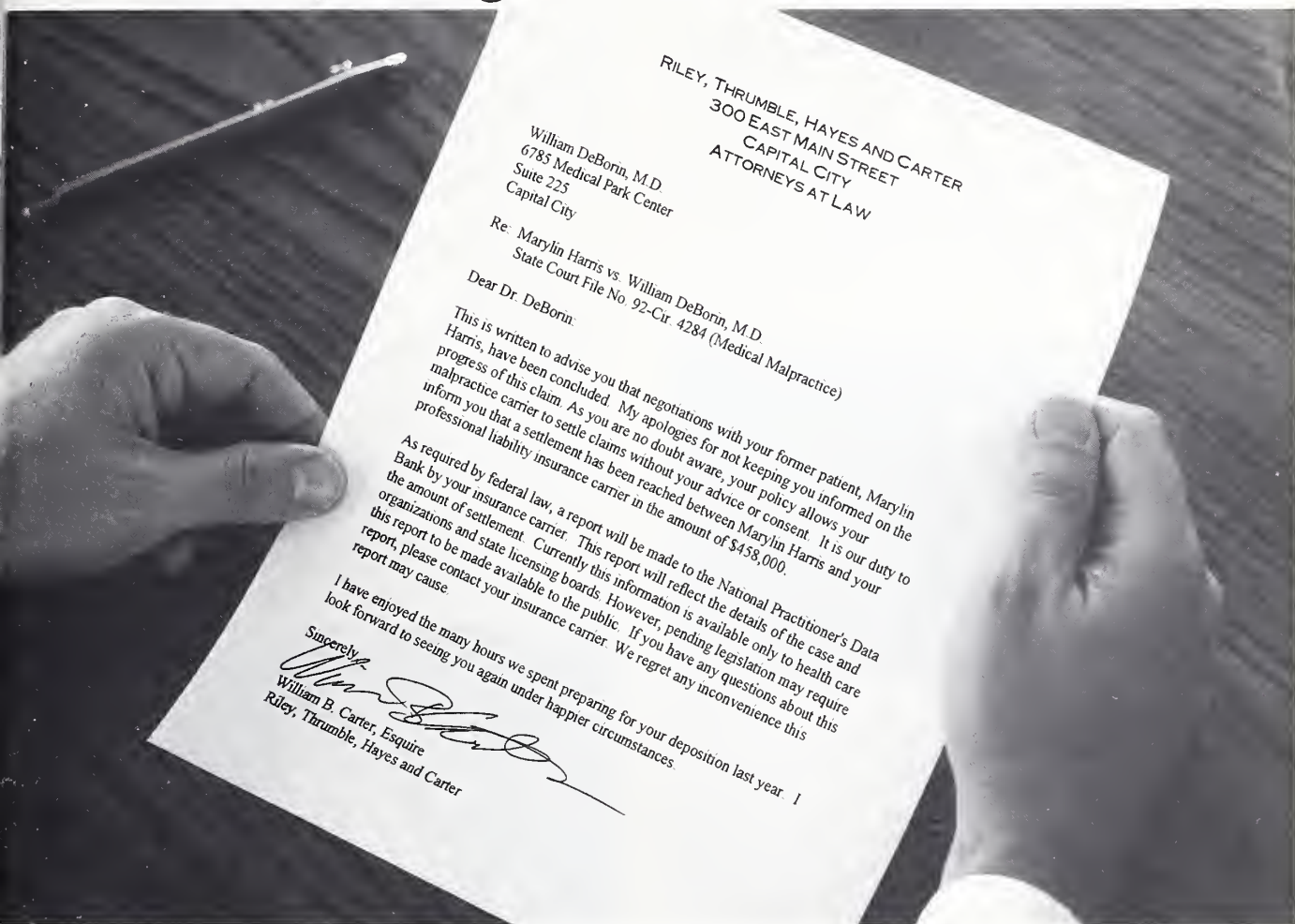
*Contributor: Elaine Wilson, M.D. is affiliated with Neurology Associates of Little Rock.*

*Contributor: Michael T. King, M.D. is affiliated with Radiology Consultants in Little Rock.*





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# Medicine in the News

## Health Care Access Foundation Update

As of November 1, 1994, the Arkansas Health Care Access Foundation has provided free medical service to 8,254 medically indigent persons, received 15,807 applications and enrolled 31,947 persons.

This program has 1,683 volunteer health care providers including medical doctors, dentists, hospitals, home health agencies and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.



## AMSA Announces AMA-ERF Scholarship Recipients for 1994-1995

Eight students at the University of Arkansas College of Medicine were selected by the Arkansas Medical Society Alliance to receive the national American Medical Association Education and Research Foundation Scholarship for 1994-1995.

The county chapters of the Alliance contribute each year to a scholarship fund for deserving medical students. The AMA-ERF scholarships are awarded annually to medical students who demonstrate outstanding academic achievement and "possess the humanitarian skills to become caring and compassionate physicians." Through the fund-raising efforts of the county chapters, the Alliance has also funded many College of Medicine projects designed for teaching medical students. The number of scholarships awarded has increased over the years, from one in 1988 to eight in 1994. Presentation of the awards was made at the annual College of Medicine Scholarship Banquet. The Alliance was represented by Cynthia Weber of Jacksonville, the AMA-ERF Scholarship Chairperson for 1994-1995. Pictured left to right: Manish Patel, junior from Pine Bluff; Kristin Steingraber, sophomore from Jonesboro; Michael Thomas, junior from Little Rock. Standing left to right:

Cynthia Weber of Jacksonville; Brad White, senior from Crossett; Daniel Clark, freshman from Conway; Joseph Rose, freshman from Springdale. Not pictured: Benton Brown, sophomore from Springdale and Robert Boswell, senior from Little Rock.

## White House Conference on Aging Event To Be Held in Hot Springs

St. Joseph's Regional Center in Hot Springs will receive \$6,000 in funding to host an event leading up to the 1995 White House Conference on Aging. (WHCoA). The funds will be used to plan a symposium focusing on the health needs of minority women.

The local conference, entitled "Rural Health Promotion Strategies: A Focus On Minority Women," is planned for February 1995. The symposium will provide a forum for health providers, public officials, and concerned citizens to discuss the challenges older minority women face within the current health care system.



## Craighead/Poinsett County Medical Society/Dr. Joe Verser Scholarship Recipient Honored by College of Medicine

Bryan Spencer, freshman medical student from Harrisburg, is the inaugural recipient of the Dr. Joe Verser Scholarship. The Craighead/Poinsett County Medical Society made a generous contribution to initiate a medical student scholarship to honor Dr. Verser. Dr. Verser served as the Executive Secretary of the Arkansas State Medical Board for 43 years before retiring in June 1991, and he served as president of the Arkansas Medical Society. Dr. Verser died earlier this year. His 54 years of service to Arkansas was recognized at the annual College of Medicine Scholarship Banquet. Pictured left to right: Mrs. Bobbie Verser, Dr. Verser's wife, Bryan Spencer, and Dr. Warren Skaug, Craighead/Poinsett County Medical Society, who was instrumental in initiating the scholarship fund.



## **Arrangements for the Provision of Clinical Lab Services**

The Office of Inspector General (OIG) was established at the Department of Health and Human Services by Congress in 1976 to identify and eliminate fraud, abuse, and waste in Departmental programs and to promote efficiency and economy in their operation. The OIG carried out this mission through a nationwide program of audits, investigations and inspections. To help reduce fraud in the Medicare and Medicaid programs, the OIG is actively investigating violations of the Medicare and Medicaid anti-kickback statute, 42 U.S.C. Section 1320a-7b(b).

### **WHAT IS THE MEDICARE AND MEDICAID ANTI-KICKBACK STATUTE?**

Among its provisions, the anti-kickback statute penalizes anyone who knowingly and willfully solicits, receives, offers or pays remuneration in cash or in kind to induce or in return for:

- A. Referring an individual to a person or entity for the furnishing, or arranging for the furnishing, of any item or service payable under the Medicare or Medicaid programs; or
- B. Purchasing, leasing or ordering, or arranging for or recommending purchasing, leasing or ordering, any good, facility, service or item payable under the Medicare or Medicaid programs.

Violators are subject to criminal penalties or exclusion from participation in the Medicare and Medicaid programs, or both. In 1987, Section 14 of the Medicare and Medicaid Patient and Program Protection Act, PL 100-93, directed this Department to promulgate "safe harbor" regulations, in order to assure them that they will not be prosecuted under the anti-kickback statute for engaging in particular practices. The Department published 11 final "safe harbor" regulations on July 29, 1991 (42 C.F.R. 100.952, 57 Fed. Reg. 532,723). The scope of the anti-kickback statute is not expanded by the "safe harbor" regulations; these regulations give those in good faith compliance with a "safe harbor" the assurance that they will not be prosecuted under the anti-kickback statute.

### **HOW DOES THE ANTI-KICKBACK STATUTE RELATE TO ARRANGEMENTS FOR THE PROVISION OF CLINICAL LAB SERVICES?**

Many physicians and other health care providers rely on the services of outside clinical laboratories to which they may refer high volumes of patient specimens every day. The quality, timeliness, and cost of these services are of obvious concern to Medicare and Medicaid patients and to the programs that finance their health care services. Since physician, not the patient, generally selects the clinical laboratory, it is essential that the physician's decision regarding where to refer specimens is based only on

the best interests of the patient.

Whenever a laboratory offers or gives to a source of referrals anything of value not paid for at fair market value, the inference may be made that the thing of value is offered to induce the referral of business. The same is true whenever a referral source solicits or receives anything of value from the laboratory. By "fair market value" we mean value for general commercial purposes. However, "fair market value" must reflect an arms length transaction which has not been adjusted to include the additional value which one or both of the parties has attributed to the referral of business between them.

The Office of Inspector General has become aware of a number of practices engaged in by clinical laboratories and health care providers that implicate the anti-kickback statute in this manner. Below are some examples of lab services arrangements that may violate the anti-kickback statute:

### **PROVISION OF PHLEBOTOMY SERVICES TO PHYSICIAN**

Where permitted by state law, a laboratory makes available to a physician's office a phlebotomist who collects specimens from patients for testing by the outside laboratory. While the mere placement of a laboratory employee in the physician's office would not necessarily serve as an inducement prohibited by the anti-kickback statute, the statute is implicated when the phlebotomist performs additional tasks that are normally the responsibility of the physician's office staff. These tasks can include taking vital signs or other nursing functions, testing for the physician's office laboratory or performing clerical services.

Where the phlebotomist performs clerical or medical functions not directly related to the collection or processing of laboratory specimens, a strong inference arises that he or she is providing a benefit in return for the physician's referrals to the laboratory. In such a case, the physician, the phlebotomist and the laboratory may have exposure under the anti-kickback statute. This analysis applies equally to the placement of phlebotomists in other health care settings, including nursing homes, clinics, and hospitals.

Furthermore, the mere existence of a contact between the laboratory and the health care provider that prohibits the phlebotomist from performing services unrelated to specimen collection does not eliminate the OIG's concern, where the phlebotomist is not closely monitored by his employer or where the contractual provision is not rigorously enforced.

### **LAB PRICING AT RENAL DIALYSIS CENTERS**

The Medicare program pays for laboratory tests provided to patients with end stage renal disease (ESRD) in two different ways. Some laboratory testing is considered routine and payment is included in the composite rate paid by Medicare to the ESRD facility which in turn pays the laboratory. Some labo-

ratory testing required by the patient is not included in the composite rate, and these additional tests are billed by the laboratory directly to Medicare and paid at the usual laboratory fee scheduled prices.

The OIG is aware of cases where a laboratory offers to perform the tests encompassed by the composite rate at a price below the fair market value of the tests performed. In order to offset the low charges on the composite rate tests, the ESRD facility agrees to refer all or most of its non-composite rate tests to the laboratory. This arrangement appears to be an offer of something of value (composite rate tests at below fair market value) in return for the ordering of additional tests which are billed directly to the Medicare program.

If offered or accepted in return for referral of additional business, the lab's pricing scheme is illegal remuneration under the anti-kickback statute. The statutory exception and "safe harbor" for "discounts" does not apply to immunize patients to this type of transaction since discounts on the composite rate tests are offered to induce referral of OTHER tests. See 42 C.F.R. 1001.952 (h) (3) (ii).

#### **WAIVER OF CHARGES TO MANAGED CARE PATIENTS**

Managed care plans may require a physician or the health care provider to use only the laboratory with which the plan has negotiated a fee schedule. In such situations, the plan usually will refuse to pay claims submitted by other laboratories. The provider, however, many use a different laboratory and may wish to continue to use that laboratory for non-managed care patients. In order to retain the provider as a client, the laboratory that does not have the managed care contract may agree to perform the managed care work free of charge.

The status of such agreements under the anti-kickback statute depends in part on the nature of the contractual relationship between the managed care plan and its providers. Under the terms of many managed care contracts, a provider receives a bonus or other payment if utilization of ancillary services, such as laboratory testing, is kept below a particular level. Other managed care plans impose financial penalties if the provider's utilization of services exceeds pre-established levels. When the laboratory agrees to write off charges for the physician's managed care work, the physician may realize a financial benefit from the managed care plan created by the appearance that utilization of tests has been reduced.

In cases where the provision of free services results in a benefit to the provider, the anti-kickback statute is implicated. If offered or accepted in return for the referral of Medicare or State health care plan business, both the laboratory and the physician may be violating the anti-kickback statute. There is no statutory exception or "safe harbor" to immunize any

party to such a practice because the federal programs do not realize the benefit of these "free" services. See 42 D.F.R. 1001.952 (h) (3) (iii).

#### **OTHER INDUCEMENTS**

The following are additional examples of inducements offered by clinical laboratories which may implicate the anti-kickback statute:

- Free pick-up and disposal of bio-hazardous waste products (such as sharps) unrelated to the collection of specimens for the outside laboratory.
- Provision of computers or fax machines, unless such equipment is integral to, and exclusively used for, performance of the outside laboratory's work.
- Provision of free laboratory testing for health care providers, their families and their employees.

Where one purpose of these arrangements is to induce the referral of program-reimbursed laboratory testing, both the clinical laboratory and the health care provider may be liable under the statute and may be subject to criminal prosecution and exclusion from participation in Medicare and Medicaid.

#### **WHAT TO DO IF YOU HAVE INFORMATION ABOUT SUSPECT CLINICAL LABORATORY ARRANGEMENTS**

If you have information about laboratories, physicians or health care providers engaging in the type of activities described above, contact any of the regional offices of the Office of Investigations of the Office of Inspector General, U.S. Department of Health and Human Services, at the following locations:

- Boston (Massachusetts, Vermont, New Hampshire, Main, Rhode Island, Connecticut) 617-565-2660.
- New York (New York, New Jersey, Puerto Rico, Virgin Islands) 212-264-1691.
- Philadelphia (Pennsylvania, Maryland, Delaware, West Virginia, Virginia) 215-596-6796)
- Atlanta (Georgia, Kentucky, North Carolina, South Carolina, Florida, Tennessee, Alabama, Mississippi, (North District)) 404-331-2131.
- Chicago (Illinois, Minnesota, Wisconsin, Michigan, Indiana, Ohio, Iowa, Missouri) 312-353-2740.
- Dallas (Texas, New Mexico, Oklahoma, ARKANSAS, Louisiana, Mississippi (South District)) 214-767-8406.
- Denver (Colorado, Utah, Wyoming, Montana, North Dakota, South Dakota, Nebraska, Kansas) 303-844-5621.
- Los Angeles (Arizona, Nevada, (Clark County), Southern California) 714-836-2372.
- San Francisco (Northern California, Nevada, Arizona, Hawaii, Oregon, Idaho, Washington) 415-556-8880
- Washington, D.C. (District of Columbia and metropolitan areas of Virginia and Maryland) 202-619-1900.



# AMS Newsmakers

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**Dr. David Barclay**, Little Rock gynecological oncologist, was recently elected as a Central Arkansas Radiation Therapy Institute board member for three-year terms.

**Dr. James A. Cambell, Jr.**, of Pine Bluff, was appointed to the State Kidney Disease Commission by Governor Jim Guy Tucker.

**Dr. David Fried**, of Mena, was recently honored at the opening ceremonies of the American Academy of Family Physicians' 44th Annual Scientific Assembly for 45 years of membership.

**Dr. William E. Golden**, director of General Internal Medicine at the University of Arkansas for Medical Sciences in Little Rock, was recently voted president-elect of the American Society of Internal Medicine (ASIM) at ASIM's 38th Annual Meeting. He has been a member of the ASIM Board of Trustees since 1986.

**Dr. Ben Saltzman**, of Mountain Home, was recently honored. Dr. Geoffrey Goldsmith, of the University of Arkansas for Medical Sciences, announced to the Mountain Home Rotary Club that an endowed professorship at UAMS named for Saltzman will be an essential part of an effort to produce more general practitioners.

**Dr. Steve Thomason**, of Cabot, attended the 46th Annual Scientific Assembly of the American Academy of Family Physicians in Boston, Mass.

**Dr. Benjamin J. Walsh**, of Crossett, attended the 46th Annual Scientific Assembly of the American Academy of Family Physicians (AAFP) in Boston, Mass.



## In Memoriam

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### **Marion S. Craig, M.D.**

Dr. Marion S. Craig, of Little Rock, died Friday, October 21, 1994. He was 74.

He is survived by his wife, Evelyn Torrence Craig of Little Rock; a son, Dr. Andrew G. Craig of London, England; a daughter, Catherine Clinger of Richmond, Va.; a brother, Dr. Robert A. Craig of Batesville; and three stepsisters, Aubre Sanders of Little Rock, Frances Terry of Columbia, S.C., and Ruth "Baby" Futrell of Hot Springs; and two grandchildren, Sarah and Emily Clinger.

### **Margaret Cunningham**

Margaret Cunningham, of Pine Bluff, died Thursday, November 3, 1994. She was 77.

Margaret Cunningham was the widow of Dr. Thomas Jefferson Cunningham. Survivors include two sons, Dr. Tommy Cunningham and Jimmy Cunningham; a grandson, Jeffrey Cunningham; and three grandchildren.

### **Mason Glynn Lawson, M.D.**

Dr. Mason Glynn Lawson, of Little Rock, died Monday, October 24, 1994. He was 90.

Survivors include his wife Mona Rogers Lawson.

Dr. Mason Glynn Lawson was a member of the Arkansas Medical Society Fifty Year Club.

### **Nicholas W. Riegler, M.D.**

Dr. Nicholas W. Riegler, of Little Rock, died Saturday, November 5, 1994. He was 72.

Survivors include his five daughters, Mary Jane Cheatham, Barbara Anna Riegler, both of Little Rock, Rebecca Louise Yates, Dallas, Texas, Cassandra Nichole Sanders of Thomasville, Ga., and Katherine Elizabeth Johnson, Gallatin, Tenn.; a sister, Tennie E. Richardson, Hot Springs; and nine grandchildren.



# Things To Come

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## January 9-11

**Confronting the Challenge of Clergy in Crisis.** Topeka, Kansas. Sponsored by the Menninger Clinic, Division of Continuing Education and the Religion & Psychiatry Department. For more information, call (800) 288-7377.

## January 14

**Ophthalmology for the Primary Care Physician.** UC Davis Medical Center Cancer Center Auditorium, Sacramento, Calif. Sponsored by the Office of CME and UC Davis School of Medicine and Medical Center. For more information, call (916) 734-5390.

## January 22-27

**21st Annual Midwinter Program in Continuing Medical Education for Psychiatrists.** Hyatt Regency Lake Tahoe, Incline Village, Nevada. Sponsored by the Office of Continuing Medical Education and UC Davis School of Medicine and Medical Center. Category I credit: 25 hours. For more information, call (916) 734-5390.

## January 28

**Otolaryngology Update for Pediatricians.** Westin Canal Place Hotel, New Orleans, Louisiana. Sponsored by Tulane University Medical Center Department of Otolaryngology and Office of Continuing Education. For more information, call (504) 588-5466 or (800) 588-5300.

## February 3-4

**Thirteenth Annual UC Davis Infectious Disease Conference.** Hilton Inn, Sacramento, Calif. Sponsored by the Office of Continuing Medical Education and UC Davis School of Medicine and Medical Center. For more information, call (916) 734-5390.

## February 6

**Eighth Executive Program in Managed Care.** Embassy Suites Hotel, Kansas City, Missouri. Sponsored by the Henry W. Bloch School of Business and Public Administration at the University of Missouri-Kansas City, the Health Services Management Program at the University of Missouri-Columbia and the Group Health Association of America, Inc. For more information, call (816) 235-1478 or (816) 235-1489.

## February 9-12

**50th Annual Postgraduate OB/GYN Assembly.** Beverly Hilton Hotel, Beverly Hills, California. Sponsored by the Obstetrical and Gynecological Assembly of Southern California. For more information, call (213) 937-5514.

## February 17-18

**Contemporary Concepts in Self Psychology: Theory & Clinical Practice.** Topeka, Kansas. Sponsored by the Menninger Clinic, Division of Continuing Education. For information, call (800) 288-7377.

## February 24-25

**Incontinence Update 1995.** Hyatt Regency, New Orleans, Louisiana. Sponsored by the Tulane University School of Medicine Department of Urology, Nursing Resource Center and Office of Continuing Medical Education. For more information, call (504) 588-5466 or (800) 588-5300.

## March 4-9

**Twenty-second Annual Critical Care Medicine Course.** Marriott Hotel, Oklahoma City, Oklahoma. Sponsored by the University of Oklahoma. For more information, call (405) 271-5904.

## March 5-10

**Coping with Current Issues in Clinical Practice: 17th Annual Winter Psychiatry Conference.** Park City, Utah. Sponsored by the Karl Menninger School of Psychiatry & Mental Health Sciences and the Division of Continuing Education. For more information, call (800) 288-7377.

## March 8-9

**Child & Adolescent Rural Injury Control Conference.** Holiday Inn - Madison West, Middleton, Wisconsin. Hosted by the Children's Safety Network and the National Farm Medicine Center. For more information, call (800) 662-6900.

## March 8-10

**Nuclear Oncology.** Thomas B. Turner Building, Johns Hopkins Medical Institutions, Baltimore, Maryland. Sponsored by Johns Hopkins Medical Institutions. For more information, call (410) 955-2959.



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# Keeping Up

## Alzheimers

January 12, 1995, 12:00 noon, MCSA Union Medical Campus Conf. Rm. #3, El Dorado. Sponsored by AHEC - South Arkansas and presented by David Lipschitz, M.D. Category I credit: 1.0 hour.

## Hepatitis C

January 26, 1995, 12:00 noon, MCSA Union Medical Campus Conf. Rm. #3, El Dorado. Sponsored by AHEC - South Arkansas and presented by Jerry Mann, M.D. Category I credit: 1 hour.

## Off To A Good Start

February 24-26, 1995, 7:00 a.m., registration & breakfast, Park Hilton Inn, Hot Springs. Sponsored by UAMS and presented by Malinda Webb, M.D. Category I credit offered: 7.5 hours. Fee: \$135.

## 1995 Infectious Diseases Update

March 10, 1995, 12:00 noon & March 11, 1995, 8:00 a.m., Hot Springs. Sponsored by Arkansas Children's Hospital. Category I credit offered: 7.5 hours. Fee: \$135.

## Recurring Education Programs

As organizations accredited for continuing medical education by the Arkansas Medical Society, the organizations named certify that these continuing medical education activities meet the criteria for the credit hours specified in Category I of the Physician's Recognition Award of the American Medical Association.

### FAYETTEVILLE-VA MEDICAL CENTER

General Medical Topics, Thursdays, 12:00 noon, Auditorium, Bldg. 3  
Medical Grand Rounds, Thursdays, 12:00 noon, Conference Room, Bldg. 4

### HOT SPRINGS-AMI NATIONAL PARK MEDICAL CENTER

Continuing Medical Education Luncheon, Jan 13 & 27, 12:30 p.m., AMI Ozark - Quapaw Room

### LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL

Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium  
Genetics Conference, Wednesdays, 12:00 noon, Sturgis Bldg., room 457  
Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom  
Pediatric Grand Rounds, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium  
Pediatric Neuroscience Conference, 1st Thursday, 8:00 a.m., 2nd Floor Classroom  
Pediatric Pharmacology Conference, 5th Wednesday, 12:00 noon, 2nd Classroom  
Pediatric Research Conference, 1st Thursday, 12:00 noon, 2nd Floor Classroom

### LITTLE ROCK-ST. VINCENT INFIRMARY MEDICAL CENTER

Cancer Conferences, Thursdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Chest Conference, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Sandwich buffet served  
General Surgery Grand Rounds, 1st Thursday, 7:00 a.m. Smith Room. Light breakfast provided.  
GYN Surgery Cancer Conference, 2nd Monday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Interdisciplinary AIDS Conference, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Joint Tumor Conference, 1st Wednesday, 12:00 noon. CARTI Auditorium. Lunch provided.  
Journal Club, Tuesdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Mental Health Conference, 3rd Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Urology Grand Rounds, 1st Tuesday, 5:30 p.m., Southwestern Bell/Arkla room. Refreshments provided

### LITTLE ROCK-BAPTIST MEDICAL CENTER

Anesthesiology Conference, 3rd Thursday, 7:00 a.m., Conference Room 1  
Breast Conference, 3rd Thursday, 7:00 a.m., Conference Room 1  
GI Conference, 4th Friday, 11:30 a.m., Conference Room 1  
Grand Rounds Conference, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.  
Pathology Conference, 1st Tuesday, 3:00 p.m., Pathology Library  
Pediatric Grand Rounds, Tuesdays, 12:00 noon, Especially for Women Resource Room, 2nd floor/BMC. Category 1 credit available. Lunch provided.  
Pulmonary Conference, Tuesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.  
Sleep Case Conference, Fridays, 12:00 noon. Call BMC ext. 1902 for location. Lunch provided.



## **MOUNTAIN HOME-BAXTER COUNTY REGIONAL HOSPITAL**

*Lecture Series, 3rd Tuesday, 6:30 p.m., Education Building*

*Tumor Conference, Tuesdays, 12:00 noon, Carti Boardroom*

## **NORTH LITTLE ROCK-BAPTIST MEMORIAL HOSPITAL**

*Chest & Problems Case Conference, 3rd Wednesday, 12:00 noon, Assembly room. Lunch provided.*

*Grand Rounds & Chest Conference, 1st Monday (3rd, chest), 12:00 noon, Assembly room.*

*Medicine Conference, 1st Wednesday, 12:00 noon, Assembly room. Lunch provided.*

*Surgery Conference, 2nd Wednesday, 12:00 noon, Assembly room. Lunch provided.*

*X-ray Case Conference, 4th Wednesday, 12:00 noon, Assembly room. Lunch provided.*

*As an organization accredited for continuing medical education by the Accreditation Council for Continuing Medical Education, the University of Arkansas for Medical Sciences certifies the following continuing medical education activities meet the criteria for Category I of the Physician's Recognition Award of the American Medical Association.*

## **LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES**

*ACRC Oncology Forum, Thursdays, 4:00 p.m., UAMS ACRC 2nd Floor Board room, 1.5 credits*

*Anesthesia Lecture Series, Wednesdays, 4:00 p.m., UAMS Education Bldg., room G/110 A&B*

*Anesthesia Morbidity & Mortality Conference, Tuesdays, 6:45 a.m.; 2nd & 4th Thursdays, 4:00 p.m., UAMS Education Bldg., room G/110 A&B*

*Arkansas Blood & Cancer Society Conference, 6th Thursday, 7:30 p.m. Terrace Restaurant, Little Rock*

*Cardiology Clinical Conference, Mondays, 4:00 p.m., UAMS, room 3S06*

*Cardiology Graphics Conference, Wednesdays, 12:00 noon, UAMS, room 3S06*

*CARTI North Tumor Board Cancer Conference, 2nd Wednesday, 12:00 noon, CARTI North, Searcy*

*Cardiothoracic Surgery Conference, date, time, & location varies*

*Cardiothoracic Surgery Monthly Journals Club, 4th Saturday, 9:30 a.m., UAMS Surgery Dept. Library, room 2S/28D*

*Cardiothoracic Surgery Morbidity & Mortality Conference, 2nd Saturday, 9:30 a.m., UAMS Surgery Dept. Library, room 2S/28D*

*Child Psychiatry Update/Case Conference, 3 Fridays per month, 1:00 p.m., ACH Child Study Center conference room*

*CME Outreach Program, dates, times & locations vary*

*Emergency Medicine Didactic Conference 1, Thursdays, 12:00 noon. UAMS Education Bldg., room G/110A&B*

*Emergency Medicine Didactic Conference 2, Thursdays, 1:00 p.m., UAMS Education Bldg., room G/110A&B*

*Emergency Medicine Grand Rounds 1, Tuesdays, 3:00 p.m., UAMS Education Bldg., room B/106A&B*

*Emergency Medicine Grand Rounds 2, Tuesdays, 4:00 p.m., UAMS Education Bldg., room B/106A&B*

*Endocrinology Case Conference, Fridays, 7:30 a.m., ACRC 3rd floor conference room*

*Family Practice Grand Rounds, Tuesdays, 12:15 p.m., Family Practice Center, 6th and Elm*

*Gastroenterology Grand Rounds, Thursdays, 4:00 p.m., Gastroenterology conference room, 3D29*

*GI/Radiology Conference, Tuesdays, 8:00 a.m., UAMS Radiology conference room, M1/293*

*Hematology/Oncology Fellow's Forum, Fridays, 8:15 a.m., ACRC Betsy Blass conference room*

*Interhospital Urology Grand Rounds, 1st Tuesday, 5:30 p.m., St. Vincent Arkla/Bell room*

*LR Cancer Conference, Wednesdays, 12:00 noon, UAMS ACRC conference room three times a month, CARTI Auditorium once a month*

*LR Vascular Conference, time & date varies monthly, rotates between UAMS, SVI & BMC*

*Medicine Grand Rounds, Thursdays, 12:00 noon, UAMS Education Bldg., room G/131A&B*

*Med/Path Conference, 3rd or 4th Tuesday, 3:00 p.m., UAMS Shorey Bldg., room S/306*

*Medicine Journal Club, alternate Thursdays, 7:30 a.m., ACC Medicine Clinic conference room*

*Medicine Research Conference, Wednesdays (except 3rd), 4:30 p.m. UAMS Education Bldg. room B/135*

*Neurology Clinical Case Conference, Thursdays, 8:00 a.m., rotates between VAMC-LR, UAMS, & ACH*

*Neuropathology Conference, Thursdays, 9:15 a.m. VAMC-LR Pathology Dept. 1.25 credit hours*

*Neuroradiology Conference, Wednesdays, 4:00 p.m., UAMS Neuroradiology conference room, M1/293*

*Neuroscience Conference (Basic), Mondays, 8:00 a.m., UAMS 7D33*

*Neuroscience Conference (Basic & Clinical), Wednesdays, 4:00 p.m., UAMS 7C*

*Neurosurgery Journal Club, 2nd & 4th Thursdays, 8:00 p.m., 2 credit hours*

*Neurosurgical Pathology Conference, Thursdays, 4:00 p.m., VAMC-LR Neuropathology conference room, 2E141*

*OB/GYN Fetal Boards, 2nd Fridays, 8:00 a.m., ACH Sturgis Bldg.*

*OB/GYN Grand Rounds, Wednesdays, 7:45 a.m., UAMS Education Bldg., room G/131B*

*Ophthalmology Problem Case Conference, Thursdays, 4:00 p.m., UAMS Jones Eye Institute, 2 credit hours*

*Ophthalmology Residency Morning Lectures, Mondays, Wednesdays, Fridays, 7:30 a.m., UAMS Jones Eye Institute*

*Orthopaedic Basic Science Conference, Tuesdays, 8:00 a.m., UAMS Education Bldg., room B/135*

*Orthopaedic Bibliography Conference, Tuesdays, 8:30 a.m., UAMS Education Bldg., room B/135, 1.5 credit hours*

*Orthopaedic Fracture Conference, Tuesdays, 7:30 a.m., UAMS Education Bldg., room B/135*

*Orthopaedic Grand Rounds, Tuesdays, 10:00 a.m., UAMS Education Bldg., room B/135*

*Pathology Autopsy Conference, Wednesdays, 12:00 noon, VAMC-LR Morgue*

*Psychiatry Grand Rounds*, Fridays, 11:00 a.m., UAMS Child Study Center Auditorium  
*Surgery Basic Sciences Conference*, 1st Saturday, 7:30 a.m., ACRC 2nd floor conference room  
*Surgery Grand Rounds*, Saturdays, 8:30 a.m., ACRC 2nd floor conference room  
*Surgery Morbidity & Mortality Conference*, Saturdays, 9:30 a.m., ACRC 2nd floor conference room  
*Surgery Resident Case Conference*, Saturdays (except 1st), 7:30 a.m., ACRC 2nd floor conference room  
*Trauma Morbidity & Mortality Conference*, date & time varies monthly, ACRC 2nd floor conference room  
*Urology Adult Subject Oriented Conference*, once monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Basic Sciences Conference*, 2nd Tuesdays, 5:00 p.m., VAMC-LR, 4D resident office  
*Urology Clinical Didactic Conference*, 3rd Tuesday, 5:00 p.m., VAMC-LR, 4D  
*Urology Formal Teaching (Grand) Rounds*, once or twice monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Journal Club*, once a month, 5:00 p.m., VAMC-LR, 4D  
*Urology Morbidity & Mortality Conference*, once monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Pathology Conference*, 4th Thursday, 5:00 p.m., VAMC-LR, 4D  
*Urology Pediatric Conference*, once monthly, 5:00 p.m., ACH Sturgis Bldg., Clinic 2  
*Urology Pre-op/Didactic Conference*, Mondays, 5:00 p.m., VAMC-LR, 4D  
*Urology Radiology Conference*, 1st Thursday, 5:00 p.m., UAMS, Radiology Department  
*Urology Teaching Conference*, Wednesdays, 5:00 p.m., VAMC-LR, 4D  
*Urology VA Teaching Rounds*, every Friday, 7:30 a.m., VAMC-LR, 4D  
*Uro-radiology Conference (Urologic Imaging)*, 1st Tuesdays, 5:00 p.m., UAMS Radiology conference room  
*VA Chest Conference (combined Surgical/Medical Chest Conference)*, Mondays, 12:15 p.m., VAMC-LR, room 2D109  
*VA Diagnostic Imaging Conference*, Monday-Thursday, 8:00 a.m., VAMC-LR Nuclear Medicine conference room, room 1D173  
*VA GREEC/Geriatric Research Conference*, Tuesdays, 4:00 p.m., VAMC-LR, room 2D109  
*VA Hematology/Oncology Conference*, Thursdays, 8:15 a.m., VAMC-LR Pathology conference room 2E142  
*VA Lung Cancer Conference*, Thursdays, 3:00 p.m., VAMC-LR, room 2E142  
*VA Medical Service Teaching Conference*, Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68 room 130  
*VA Medicine-Pathology Conference*, Tuesday, 2:00 p.m., VAMC-LR, room 2D109  
*VA Medicine Resident's Clinical Case Conference*, Fridays, 12:00 noon, VAMC-LR, room 2D08  
*VA Physical Medicine & Rehab Grand Rounds*, 4th Friday, 11:30 a.m., VAMC-NLR Bldg. 68, room 118 or Baptist Rehab Institute  
*VA Surgery Grand Rounds*, Thursdays, 12:45 p.m., VAMC-LR, room 2D109, 1.25 credit hours  
*VA Topics in Rehabilitation Medicine Conference*, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR Bldg. 68, room 118  
*VA Weekly Cancer Conference*, Monday, 3:00 p.m., VAMC-LR, room 2E-142  
*White County Memorial Hospital Medical Staff Program*, once monthly, dates & times vary, White County Memorial Hospital, Searcy

#### **EL DORADO-AHEC**

*Behavioral Sciences Conference*, 1st & 4th Friday, 12:30 p.m., AHEC - South Arkansas  
*Chest Conference*, 3rd Wednesday, 12:30 p.m., Warner Brown Hospital  
*Dermatology Conference*, 1st Tuesdays and 1st Thursdays, AHEC - South Arkansas  
*GYN Conference*, 2nd Friday, 12:30 p.m., AHEC-South Arkansas  
*Internal Medicine Conference*, 1st, 2nd & 4th Wednesday, 12:30 p.m., AHEC-South Arkansas  
*Noon Lecture Series*, 2nd & 4th Thursday, 12:00 noon, AHEC - South Arkansas. Lunch provided.  
*Pathology Conference*, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas  
*Pediatric Conference*, 3rd Friday, 12:30 p.m., AHEC - South Arkansas  
*Pediatric Case Presentation*, 3rd Tuesday, 3rd Friday, AHEC - South Arkansas  
*Arkansas Children's Hospital Pediatric Grand Rounds*, every Tuesdays, 8:00 a.m., AHEC - South Arkansas (Interactive video)  
*Pathology Conference*, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas  
*Obstetrics-Gynecology Conference*, 4th Thursday, 12:30 p.m., AHEC - South Arkansas  
*Surgical Conference*, 1st, 2nd & 3rd Monday, 12:30 p.m., AHEC - South Arkansas  
*Tumor Clinic*, 4th Tuesday, 12:30 p.m., AHEC - South Arkansas

#### **FAYETTEVILLE-AHEC NORTHWEST**

*AHEC Teaching Conferences*, Tuesdays & Wednesdays, 12:00 noon, Washington Regional Medical Center  
*AHEC Teaching Conferences*, Fridays, 12:00 noon, Washington Regional Medical Center  
*AHEC Teaching Conferences*, Thursdays, 7:30 a.m., Washington Regional Medical Center  
*Medical/Surgical Conference Series*, 4th Tuesday, 12:30, Bates Medical Center, Bentonville  
*Primary Care Conferences*, 1st & 3rd Mondays, 12:00, every Tuesday 7:30 a.m., Washington Regional Medical Center

#### **FORT SMITH-AHEC**

*Gastroenterology Conference*, 3rd Tuesday every other month, 7:00 a.m., St. Edward Mercy Medical Center  
*Neuroradiology Conference*, 3rd Wednesday, 12:00 noon, St. Edward Mercy Medical Center  
*Neuroradiology Conference*, 1st Tuesday, 11:30 a.m., Sparks Regional Medical Center



*Sparks Tumor Conference, Thursdays, 12:00 noon, Sparks Regional Medical Center*  
*Tumor Conference, Mondays, 12:00 noon, St. Edward Mercy Medical Center*

#### **JONESBORO-AHEC NORTHEAST**

*AHEC Lecture Series, 1st & 3rd Tuesday, 12:00 noon, Stroud Hall, St. Bernard's Regional Medical Center. Lunch provided.*

*Arkansas Methodist Hospital CME Conference, 7:30 a.m., Hospital Cafeteria, Arkansas Methodist Hospital, Paragould*  
*Chest Conference, 2nd Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.*

*Citywide Cardiology Conference, 3rd Thursday, 7:30 p.m., Jonesboro Holiday Inn*

*Clinical Faculty Conference, 5th Tuesday, St. Bernard's Regional Medical Center, Dietary Conference Room, lunch provided*

*Craighead/Poinsett Medical Society, 1st Tuesday, 7:00 p.m. Jonesboro Holiday Inn*

*Independence County Medical Society, 2nd Tuesday, 7:30 p.m., Batesville Country Club, Batesville*

*Interesting Case Conference, 4th Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.*

*Jackson County Medical Society, 3rd Thursday, 7:00 p.m., Newport Country Club, Newport*

*Kennett CME Conference, 3rd Monday, 12:00 noon, Twin Rivers Hospital Cafeteria, Kennett, MO*

*Methodist Hospital of Jonesboro CME Conference, 2nd Tuesday, 7:00 p.m., Cafeteria, Methodist Hospital of Jonesboro*  
*Neuroradiology Conference, 3rd Friday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.*

*Orthopedic Case Conference, June 23, 7:30 a.m., Board Room, Northeast Arkansas Rehabilitation Hospital.*

*Perinatal Conference, 2nd Wednesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.*

*Pocahontas CME Conference, 3rd Wednesday, 12:00 noon & 7:30 p.m., Randolph County Medical Center Boardroom*

*Tumor Conference, Thursdays, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.*

*Walnut Ridge CME Conference, 3rd & last Tuesday, 12:00 noon, Lawrence Memorial Hospital Cafeteria*

*White River CME Conference, 3rd Thursday, 12:00 noon, White River Medical Center Hospital Boardroom*

#### **PINE BLUFF-AHEC**

*Behavioral Science Conference, 1st & 3rd Thursday, 12:00 noon, Jefferson Regional Medical Center*

*Chest Conference, 2nd & 4th Friday, 12:00 noon, Jefferson Regional Medical Center*

*Family Practice Conference, 1st & 4th Tuesday, 12:00 noon, Jefferson Regional Medical Center*

*Geriatrics Conference, 3rd Friday, 12:00 noon, Jefferson Regional Medical Center*

*Internal Medicine Conference, 2nd & 4th Wednesday, 12:00 noon, Jefferson Regional Medical Center*

*Obstetrics/Gynecology Conference, 2nd Tuesday, 12:00 noon, Jefferson Regional Medical Center*

*Orthopedic Case Conference, 2nd & 4th Thursday, 12:00 noon, Jefferson Regional Medical Center.*

*Pediatric Conference, 3rd Wednesday, 12:00 noon, Jefferson Regional Medical Center*

*Radiology Conference, 3rd Tuesday, 12:00 noon, Jefferson Regional Medical Center*

*Southeast Arkansas Medical Lecture Series, 4th Tuesday, 6:30 p.m., Pine Bluff County Club. Dinner meeting.*

*Surgery Conference, 1st Friday, 12:00 noon, Jefferson Regional Medical Center*

*Tumor Conference, 1st Wednesday, 12:00 noon, Jefferson Regional Medical Center*

#### **TEXARKANA-AHEC SOUTHWEST**

*Chest Conference, every other 3rd Wednesday, 12:30 p.m., St. Michael Hospital*

*Neuro-Radiology Conference, 2nd & 4th Tuesday, 12:00 noon, Wadley Regional Medical Center*

*Residency Noon Conference, Mondays through Thursdays, 12:00 p.m., AHEC-Southwest Family Practice Clinic*

*Tumor Board, Fridays, except 5th Friday, 12:00 noon, Wadley Regional Medical Center & St. Michael Hospital*

*Tumor Conference, every 5th Friday, 12:00 noon alternates between Wadley Regional Medical Center & St. Michael Hospital*



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# Arkansas Medical Society Membership Roster

as of November 10, 1994

# Denotes deceased member

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Burleson, Stan W.  
Daniel, Noble B. III  
Hestir, John M.  
John, Milton C. Jr. #  
Millar, Paul H. Jr.  
Morgan, Jerry D.  
Northcutt, Carl E.  
Pritchard, Jack L.  
Speer, Hoy B. Jr.  
Speer, Marolyn N.  
Tracy, W. Lee  
Wagner, Taylor  
Yelvington, Dennis B.

## Ashley County

Burt, Frederick N.  
Garcia, Luis F.  
Gresham, Edward A.  
Grigsby, Benson  
Heder, Guy W.  
Rankin, James D.  
Salb, Robert L.  
Thompson, Barry V.  
Toon, D. L.  
Walsh, Benjamin J.

## Baxter County

Adkins, Kevin J.  
Baker, Robert L.  
Barker, Monty  
Barnes, Gregory  
Beck, Dennis  
Chatman, Ira D.  
Cheney, Maxwell G.  
Chock, Daniel P.  
Chock, Helga E.  
Clarke, James S.  
Condrey, Yoland M.  
DeYoung, Bruce  
Douglas, Donald S.  
Dyer, William  
Dykstra, Peter C.  
Elders, John Gregory  
Ford, William  
Foster, Robert D.  
Guenthner, John F.  
Hardin, Philip R.  
Johnson, Stacey M.  
Kelley, Lawrence A.

Kerr, Robert L.  
Kilgore, Kenneth M.  
Knox, Thomas E.  
Landrum, William  
MacKercher, Peter A.  
Massey, James Y.  
McAlister, Matthew  
Neis, Paul R.  
Price, Michael D.  
Regnier, George G.  
Rigler, Wilson F.  
Robbins, Bruce  
Roberts, David H.  
Saltzman, Ben N.  
Short, Luke H.  
Sneed, John W. Jr.  
Stahl, Ray E. Jr.  
Sward, David T.  
TerKeurst, John  
Trager, Marc  
Tullis, Joe M.  
Turner, Frederick C.  
Wells, Gary  
White, Edward  
White, Richard  
Wilbur, Paul F.  
Wilson, Jack C.

## Benton County

Addington, Alfred R.  
Aguilar-Guzman,  
Orlando F.  
Alderson, Roger  
Allen, L. Barry  
Allen, William M.  
Arkins, James  
Atkinson, Thomas  
Ball, Eugene H.  
Becton, Paul Jr.  
Benjamin, George  
Black, Randall Wayne  
Bledsoe, James H.  
Boden, Donna  
Boozman, Fay W. III  
Cantwell, Janet  
Clemens, R. Dale  
Clower, John D.  
Cohagan, Donald L.  
Cole, Randall E.  
Compton, Neil E.  
Costaldi, Mario E.

Cuchia, John  
Dang, Minh-Tam  
Day, Geoffrey  
Deatherage, Joseph R.  
Denman, David A.  
Diacon, W. Lindley  
Donnell, Hugh Garland  
Donnell, Robert W.  
Elkins, James P.  
Ewart, David  
Fioravanti, Bernard L.  
Friesen, Douglas L.  
Garrett, David C. III  
Goss, Stephen  
Halinski, David  
Harmon, Harry M.  
Heiss, Nancy  
Henderson, Oscar L.  
Hitt, Jerry L.  
Hof, C. William  
Holder, Robert E.  
Honderich, Jeff P.  
Horner, Glennon A.  
Howard, K. Lamar  
Hull, Robert R.  
Huskins, James D.  
Huskins, John A.  
Jacks, John W.  
Jennings, William E.  
Johnson, Christopher S.  
Johnson, Royce Oliver II  
Johnson, Steven P.  
Keane, Patrick K.  
Knapp, James R.  
Lanier, Karen A.  
LeBoeuf, Dorothy  
Lewis, Rebecca C.  
Marciniak, Douglas L.  
McCollum, Edward  
McCollum, William  
McKnight, William D.  
Mertz, John Douglas  
Mishkin, David  
Moffitt, Gary  
Moose, John I.  
Morgan, Martha  
Mould, David C.  
Mulchin, Walter  
Mullins, Neil D.  
Neaville, Gary A.  
Nugent, Loyd

Panettiere, Frank J.  
Pappas, John J.  
Pearson, Richard N.  
Pickens, James L.  
Platt, Michael R.  
Poemoceah, Kenneth M.  
Puckett, Billy J.  
Reese, Michael C.  
Revard, Ronald  
Ritz, Ralph C.  
Rodgers, Harold  
Rodkin, Richard S.  
Rollow, John A.  
Rolniak, Wallace A.  
Springer, Dan J.  
Steadman, Hunter M. Jr.  
Stinnett, Charles H.  
Stinnett, Scott G.  
Stolzy, Sandra  
Summerlin, William  
Swaim, Terry J.  
Swindell, William G.  
Tate, Jeffrey  
Treptow, Douglas  
Turley, Jan T.  
Waldon, Gene B.  
Warren, Grier D.  
Weaver, Donald D.  
Weaver, Robert H.  
Webb, William  
Wilkerson, Danny  
Youngblood, Thomas

## Boone County

Abdelaal, Ali F.  
Ashe, Barbara  
Bell, Thomas Edward  
Bennett, Joe D.  
Brandon, Henry  
Casey, Rick E.  
Chambers, Carlton L. III  
Chambers, Sue  
Collins, Kenneth  
Crider, James T.  
Daniel, Charles D.  
Dunaway, Geoffrey  
Ferguson, Noel F.  
Fowler, Ross E.  
Garland, William J. Jr.  
Gladden, Jean C. #  
Hope, John M.



Hutcheson, Galen  
 Jennings, Larry B.  
 Kim, Hyewon  
 Kirby, Henry V. #  
 Klepper, Charles R.  
 Langston, James David  
 Langston, Robert H.  
 Langston, Thomas  
 Laule, Alice R.  
 Ledbetter, Charles A.  
 Leslie, Thomas S.  
 Mahoney, Paul L. Jr.  
 Maris, Mahlon O.  
 Miller, Robert Jr.  
 Padilla, Jose S. Jr.  
 Rozeboom, Victor A.  
 Scroggins, Sam J.  
 Smith, H. Van  
 Vowell, Don R.  
 Welch, William P.  
 Williams, Rhys A.

### **Bradley County**

Chambers, F. David  
 Coyle, Pamela  
 Marsh, James W.  
 Pennington, Kerry F.  
 Wharton, Joe H.  
 Wynne, George F.

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Card, Shannon R.  
 Flake, William K.  
 Horton, Charles  
 Kresse, Gregory  
 Martinson, Alice  
 McAlister, Robin  
 Nash, John R.  
 Spurgin, Randal Truman  
 Stensby, Harold F.  
 Taylor, Richard L.  
 Wallace, Oliver  
 Warner, Milo N.

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 DeRamos, Agapito Y.  
 Jackson, John III  
 Kronfol, Ned  
 Mansour, George  
 Russell, John R.  
 Smith, Major E.  
 Thomas, H. W.  
 Tuangsithtanon, T.  
 Tvedten, Tom

Weaver, William J.  
 Wilson, Thomas C.

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 Balay, John W.  
 Elkins, John S.  
 Ferrari, Victor J. Jr.  
 Ferrell, Griffith H. Jr.  
 Ford, Michael Ray  
 Fullerton, John C. III  
 Hagood, Noland Jr.  
 Jansen, Mark  
 Kluck, Carl Jr.  
 Lowry, James  
 Peeples, George R.  
 Taylor, George D.  
 Teed, Frank S.  
 Toombs, Vernon L. #

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 Baldridge, Max  
 Barnett, James C.  
 Barnett, Michael  
 Beasley, Harold  
 Bivins, Franklin Jr.  
 Ferguson, John  
 Lewing, Hugh S.  
 Poff, Joseph H. #  
 Poff, Nathan L. #  
 Quinn, Cynthia D.  
 Sharp, Jan  
 Thomas, Jerry L.  
 Vaughan, G. Lee

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Alexander, John E. Sr.  
 Alexander, John E. Jr.  
 Baldwin, Ronald L.  
 Evans, Matthew L.  
 Farmer, John M.  
 Griffin, Rodney L.  
 Hester, Joe D.  
 Hunter, Robert W. Jr.  
 Kelley, Charles W.  
 McMahan, H. Scott  
 Murphy, Fred Y.  
 Parkman, Robert L. Jr.  
 Pullig, Thomas A.  
 Roberts, Franklin D.  
 Ruff, John L.  
 Strange, Vance M.  
 Walker, Jack T.

### **Conway County**

Hickey, Thomas H.  
 Lipsmeyer, Keith M.  
 Owens, Gastor B.  
 Wells, Charles F.

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Alston, Herman D.  
 Aston, J. Kenneth  
 Awar, Ziad  
 Ball, John  
 Barker, Charles  
 Basinger, James W.  
 Beck, M. Lowery  
 Berry, Donald M.  
 Blachly, Ronald J.  
 Blaylock, Jerry D.  
 Bodeker, Larry J.  
 Bolt, Michael E.  
 Boyd, John T.  
 Braden, Terence P. III  
 Bradley, James F. Jr.  
 Brown, Dennis R.  
 Brown, Mark C.  
 Bryan, James Earl  
 Buckner, John H.  
 Burns, Richard G.  
 Burns, Robert  
 Camp, Michael  
 Carpenter, Kennan  
 Casanova, Robert Jr.  
 Casey, Jason  
 Clopton, Owen H. Jr.  
 Cohen, Evan Scott  
 Cohen, Jeffrey O.  
 Cohen, Robert S.  
 Cook, John  
 Cranfill, Ben  
 Cranfill, General L. III  
 Crawley, Michael E.  
 Degges, Russell D.  
 Dickson, Glenn E.  
 Dow, J. Timothy  
 Duke, Billy L. II  
 Dunn, Charles C.  
 Eddington, William R.  
 Emerson, Steven  
 Felts, Larry S.  
 Fields, L. Brad  
 Foote, John W.  
 Forestiere, A. J.  
 Garner, William L.  
 George, F. Joseph  
 Golden, Stephen C.  
 Gossett, Clarence E.

Goza, Gary R.  
 Green, Terri  
 Green, William  
 Guinn, Donald R.  
 Hackbarth, Mark A.  
 Hall, Ray H. Jr.  
 Hiers, Connie L.  
 Hightower, Michael D.  
 Hill, Roger D.  
 Hogue, Ernest L.  
 Houchin, Vonda  
 Hubbard, William S.  
 Hurst, William  
 Isaacson, Michael L.  
 James, Frank M.  
 Jennings, R. Duke  
 Jiu, John B.  
 Johnson, John A.  
 Johnson, Larry H.  
 Johnson, Roehl W.  
 Jones, K. Bruce  
 Jones, R. J.  
 Keisker, Henry W.  
 Kemp, Charles E.  
 Kostick, Richard A.  
 Kroe, Donald J.  
 Kyle, Richard  
 Landry, Robert J.  
 Lassonde, Robert G.  
 Lawrence, Robert O. Jr.  
 Ledbetter, Joseph W.  
 Lepore, Diane G.  
 Levinson, Mark  
 Lewis, David M.  
 Lunde, Stephen P.  
 Luter, Dennis W.  
 Lynch, John  
 Mackey, Michael  
 Maglothin, Douglas L.  
 Mahon, Larry E.  
 Marzewski, David  
 McDaniel, Craig A.  
 McKee, Sanders  
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 Moore, Steven M.  
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 Nash, Jerry  
 Owen, Kip  
 Owens, Ben Jr.  
 Parten, Dennis  
 Peacock, Loverd  
 Porter, Revel D.  
 Price, Edwin F.  
 Price, Herbert H. III  
 Price, Joel A.

Pyle, David  
 Ragland, Darrell G.  
 Rainwater, W. T.  
 Rauls, Stephen R.  
 Ricca, Dallie  
 Ricca, Gregory F.  
 Richards, Fraser M.  
 Robbins, Robert A.  
 Roberts, Randy D.  
 Robinette, James M.  
 Rogers, James F.  
 Rusher, Albert H. Jr.  
 Ryals, Rickey O.  
 Sales, Joseph Hugh  
 Sanchez, Ilsa  
 Sanders, James W.  
 Sapiro, Gary S.  
 Sauer, Curtis  
 Saunders, Earnest #  
 Savage, Patrick Joseph  
 Schrantz, James L.  
 Scriber, Ladd J.  
 Scroggin, Carroll D. Jr.  
 Shanlever, Rufus C. #  
 Shanlever, William T.  
 Sifford, Mark  
 Silas, David  
 Skaug, Phyllis  
 Skaug, Warren A.  
 Smith, Floyd A. Jr.  
 Smith, Michael J.  
 Smith, Vestal B.  
 Sneed, Jane  
 Snodgrass, Scot J.  
 Sparks, Barrett  
 St Clair, John T. Jr.  
 Stainton, Joseph C.  
 Stainton, Robert M. Jr.  
 Stallings, Joe H. Jr.  
 Stank, Thomas M.  
 Stevenson, Richard  
 Stidman, Jeff  
 Stripling, Mark C.  
 Stroope, Henry F.  
 Stubblefield, Sandra  
 Stubblefield, William  
 Swingle, Charles G.  
 Taylor, Robert D.  
 Tedder, Barry C.  
 Tedder, Michael E.  
 Thomas, Gary A.  
 Tidwell, Kenneth Jr.  
 Tonymon, Kenneth  
 Tuck, Rebecca  
 Verser, Joe #  
 Vines, Troy Alan

Vollman, Don B. Jr.  
 Walker, Meredith M.  
 Warner, Robert L. Jr.  
 Webb, James W. #  
 White, Anthony T.  
 Wiggins, H. Lynn  
 Williams, E. Walden  
 Wilson, Joe T. Jr.  
 Wisdom, Garland  
 Durwood  
 Woloszyn, John  
 Wood, Mark Cole  
 Woodruff, Stephen O.  
 Woodward, Gary W.  
 Yates, Robert L.  
 Young, Richard S.  
 Young, William C. Jr.

### **Crawford County**

Darden, Lester R.  
 Delk, John II  
 Doyle, Edward  
 Edds, Millard C.  
 Edwards, Henry N.  
 Floyd, Rebecca  
 Harford, Martin  
 Hefner, David P.  
 Jennings, Charles A.  
 Mason, Joe N.  
 Ross, R. Wendell  
 Sasser, L. Gordon III  
 Schlabach, Ronald D.  
 Shearer, Francis E.  
 Sills, D. Bart  
 Stinson, Harold Keith  
 Travis, A. Lawrence  
 Young, Sandra S.

### **Crittenden County**

Adler, Justin Jr.  
 Arnold, Sidney W.  
 Barr, Marian  
 Bryant, G. Edward Jr.  
 Clemons, Mark  
 Deneke, Milton D.  
 Evans, Loraine J.  
 Ferguson, Scott  
 Ferguson, T. Murray  
 Ford, Robert C. Jr.  
 Greene, Robert W. Jr.  
 Hernandez, Jacinto  
 Hodges, John M.  
 Huffstutter, Paul J.  
 Jay, Gilbert D. III  
 Kaplan, Bertram

Kennedy, Keith B.  
 Khan, Mohammed B.  
 L'Heureux, Guy J.  
 Lubin, Milton #  
 Meredith, Samuel G. Jr.  
 Miller, James L.  
 Murray, Ian F.  
 Nadeau, Kenneth R.  
 Peeples, Chester W. Jr.  
 Peeples, Guy Langley  
 Pierce, Trent P.  
 Rudorfer, Bennett Lewis  
 Schoettle, Glenn P.  
 Schoettle, Steve P.  
 Shrader, Floyd R.  
 Smith, Bedford W.  
 Smith, Mark M.  
 Utley, L. Thomas  
 Wah, John  
 Webb, Dan W.  
 Wright, William J.

### **Cross County**

Beaton, James  
 Beaton, Kenneth E.  
 Bethell, Robert D.  
 Burks, Willard G.  
 Crain, Vance J.  
 Hayes, Robert A. Jr.  
 Jacobs, James R.

### **Dallas County**

Delamore, John H.  
 Howard, Don  
 Nutt, Hugh A.  
 Spears, Robert S.

### **Desha County**

Asemota, Oboma  
 Go, Peter Kong Hua  
 Harris, Howard R.  
 Hoagland, Robert A.  
 Masquil, Filipe  
 Prosser, Robert L. III  
 Turney, Lonnie R.  
 Young, James E.

### **Drew County**

Burns, Robert E.  
 Busby, Arlee K.  
 Maxwell, Ralph M.  
 McKiever, William R.  
 Wallick, Paul A.  
 Williams, William III  
 Wilson, Harold F.

### **Faulkner County**

Almond, Cynthia Carol  
 Archer, Charles A. Jr.  
 Arnold, Robert  
 Beasley, Margaret D.  
 Benafield, Robert B.  
 Bowlin, Randal  
 Bowman, Gary  
 Clark, Robert L. Jr.  
 Collins, Mitchell L.  
 Cummins, J. Craig  
 Daniel, Sam V.  
 Furlow, William C.  
 Garrison, James S.  
 Ghormley, Jonathan  
 Gordy, L. Fred Jr.  
 Hendrickson, Richard, Jr.  
 Holland, Rhonda  
 Hudson, Thomas F. III  
 Jackson, Carole  
 Landberg, Karl H.  
 Magie, Jimmie J.  
 Martin, David A.  
 Marvin, Peter  
 McCarron, Robert  
 McChristian, Paul L.  
 Murphy, Kenneth  
 Raney, Herschel D. Jr.  
 Roberts, Thomas  
 Ross, Rex W.  
 Shirley, David C.  
 Smith, John D.  
 Smith, Lander A.  
 Stancil, Vicki  
 Stone, Phillip  
 Throneberry, Bart

### **Franklin County**

Gibbons, David L.  
 Lachowsky, John  
 Long, C. C.  
 Smith, John C.  
 Wilson, Robert  
 Zabad, Hussein

### **Garland County**

Arthur, James M.  
 Aspell, Robert  
 Astle, Nancy  
 Atherton, Lee G.  
 Bandy, Preston R.  
 Beamer, Lee F. #  
 Bodemann, Diane  
 Bodemann, Donald R.  
 Bodemann, Michael C.



Bodemann, Stephen L.  
 Bohnen, Loren O.  
 Borg, Robert V.  
 Borland, Judy  
 Bracken, Ronald J.  
 Braley, Richard E.  
 Braun, James R.  
 Brunner, John H.  
 Bumpas, Timothy F.  
 Burton, Frank M.  
 Burton, James F.  
 Campbell, James W.  
 Carpenter, James  
 Cates, Jack A.  
 Cenac, Joseph W. Jr.  
 Cunningham, Mark  
 Cupp, Cecil W. III  
 Davis, Sheryl L.  
 Dodson, John W. Jr.  
 Dolan, Patrick III  
 Dunn, Richard W.  
 Eisele, W. Martin  
 English, P. Timothy  
 Finan, E. Michael  
 Fine, B.D. Jr.  
 Fore, Robert W.  
 Fotioo, George J.  
 French, James H.  
 Fuerst, Erwin J.  
 Gardial, J. Richard  
 Gardner, James L.  
 Gerber, Allen D.  
 Gocio, Allan C.  
 Griffin, James E.  
 Haggard, John L.  
 Hale, Kevin D.  
 Harper, Edwin L.  
 Headrick, Daniel  
 Hechanova, D. M. Jr.  
 Heinemann, Fred M.  
 Henson, Clinton H.  
 Hickman, Michael P.  
 Hill, Robert L.  
 Hollis, Thomas H.  
 Howe, H. Joe  
 Hughes, James A.  
 Humphreys, Robert P.  
 Irwin, William G.  
 Jackson, Haynes G.  
 Jackson, Haynes G. Jr.  
 James, Janeen  
 Jayaraman, K. K.  
 Jayaraman, Vilasini D.  
 Jayasundera, Naomal S.  
 Johnson, Paulette S.  
 Johnson, Robert D.

Johnston, Gaither C.  
 Kaler, Ron A.  
 Keadle, William R.  
 Kincheloe, A. Dale  
 King, Leeman H.  
 Kleinhenz, Robert W.  
 Klugh, Walter G. Jr.  
 Koehn, Martin A.  
 Lane, Charles S. III  
 Lee, William R.  
 Lennon, Yates  
 Martin, Jana  
 Maruthur, Gopakumar  
 Mashburn, William R.  
 McConkie, Stuart  
 McCrary, Robert F. Jr.  
 McFarland, Louis R.  
 McMahan, James  
 Meek, Gary N.  
 Munos, Louis R.  
 Olive, Robert Jr.  
 Pai, Balakrishna  
 Pappas, Deno P.  
 Parkerson, Cecil W.  
 Peeples, Raymond E.  
 Pellegrino, Richard  
 Plaza, Jesus' A.  
 Powell, Brenda  
 Queen, George P.  
 Rainwater, W. Sloan  
 Reddy, Prabhakara K.  
 Reinhart, Jeffrey  
 Robbins, Mark  
 Robert, Jon M.  
 Rosenzweig, Joseph L.  
 Russell, Mark  
 Sanders, Hallman E.  
 Schauder, Craig  
 Schmidt, Clinton C.  
 Seifert, Kenneth A.  
 Shelby, Eugene M.  
 Shroff, Rajesh K.  
 Simpson, John B.  
 Slaton, G. Don  
 Smith, Bruce L. Jr.  
 Smith, John W.  
 Smith, Phillip L.  
 Sorrels, John W.  
 Sousan, Leo  
 Springer, Melvin R. Jr.  
 Springer, William Y.  
 Stecker, Elton H. Jr.  
 Stecker, Rheeta M.  
 Stough, D. Bluford III  
 Stough, Dow B. IV  
 Thomas, W. Al

Thompson, Thomas P. Jr.  
 Trieschmann, John W.  
 Tucker, R. Paul  
 Wallace, Thomas  
 Walley, Luther R.  
 Webb, Timothy  
 Woodward, Philip A.  
 Wright, Charles C.  
 Young, Michael J.

### **Grant County**

Irvin, Jack M.  
 Paulk, Clyde D.

### **Greene-Clay County**

Baker, Clark M.  
 Boggs, Dwight F.  
 Bonner, J. Darrell  
 Brown, Peggy J.  
 Cagle, Roger E.  
 Collier, George H. Jr.  
 Collier, Jon D.  
 Crow, Asa A.  
 Duckworth, Hillard R.  
 Fonticiella, Adalberto  
 Fonticiella, Aldo V.  
 Hardcastle, R. Lowell  
 Harper, Bland #  
 Hazzard, Marion P.  
 Hobby, George A.  
 Jackson, Ron  
 Kemp, Clarence  
 Laffoon, Scott L.  
 Lawson, J. Larry  
 Martin, Richard O.  
 Mitchell, Bennie E.  
 Morrison, Jimmy J.  
 Muse, Jerry L.  
 Page, Billie C.  
 Perry, John K.  
 Purcell, Donald I.  
 Rollins, William  
 Sellars, John R.  
 Shedd, Leonus L.  
 Sheridan, James G.  
 Shotts, C. Mack Jr.  
 Shotts, Vern Ann  
 Smith, Norman  
 Watson, Samuel D.  
 White, Robert B.  
 Williams, Dwight M.  
 Williams, Jacob M.

### **Hempstead County**

Finley, George

Harris, Lowell O.  
 Holt, Forney G.  
 McKenzie, Jim  
 Mercer, Lloyd  
 Stevens, David G.  
 Wright, George H.

### **Hot Spring County**

Berry, Frederick B.  
 Bollen, A. Ray  
 Brashears, Larry B.  
 Burton, Bruce K.  
 Cobb, Russell W.  
 Ellis, C. Randolph  
 Highsmith, Vivian F.  
 Kersh, N. B.  
 Lumb, John C.  
 Peters, Claude F.  
 Tilley, Absalom  
 Vaughan, John A.  
 White, Bruce A.  
 White, Robert H.

### **Howard-Pike County**

Dunn, Robert  
 Floyd, Mark A.  
 Gorrell, Robert J. Jr.  
 Gullett, A. Dale  
 Hopson, Deanna  
 Humphreys, T. J. Jr.  
 King, Joe D.  
 Peebles, Samuel W.  
 Sayre, John  
 Shefa, Bobbie  
 Sykes, Robert  
 Turbeville, James O.  
 Ward, Hiram T.  
 White, Phillip L.

### **Independence County**

Alexander, William Steve  
 Allen, James D.  
 Angel, Jeff D.  
 Baker, John R.  
 Baker, Robert V.  
 Bates, Ronald J.  
 Bess, Lloyd G.  
 Brown, Hunter Lee  
 Brown, Verona T.  
 Davidson, Andy  
 Davidson, Dennis O.  
 Fowler, William  
 Fulbright, Thomas  
 Goodin, William H. Jr.  
 Hays, Sarah F.

Johnson, Deborah A.  
 Jones, Edward J.  
 Jones, Edward T.  
 Kearns, Harry  
 Ketz, Wesley J.  
 Lambert, John S.  
 Lytle, Jim E.  
 McClain, Charles M. Jr.  
 Melton, Clinton G.  
 Moody, Lackey G.  
 Neaville, Gregory  
 O'Brien, Marcus D.  
 Piediscalzi, Nicholas  
 Raney, W. Troy #  
 Scott, John G.  
 Sherwood, Gary  
 Simpson, Ronald  
 Slaughter, Bob L.  
 Sloan, Fredric J. II  
 Stalker, James M.  
 Strickland, Nathan E. #  
 Sutterfield, Terry F.  
 Taylor, Chaney W.  
 Taylor, Charles A.  
 Tucker, Charles L.  
 Van Grouw, Richard  
 Waldrip, William J. III  
 Walton, Robert B.  
 Webster, Russell P.  
 Williams, Robin C.  
 Winters, John C.  
 Zini, James E.

### **Jackson County**

Ashley, John D. Jr.  
 Carney, J. W.  
 Chauhan, Mufiz A.  
 Dudley, Guilford M. III  
 Falwell, K. Wade  
 Frankum, Jerry M. Jr.  
 Fremming, Bret G.  
 Green, Roger L.  
 Hergenroeder, Paul J.  
 Hunt, Randall Evan  
 Jackson, Jabez Fenton Jr.  
 Junkin, A. Bruce  
 Montgomery, F. Renee'  
 Poon, Hon K.  
 Reynolds, Roland C.  
 Snodgrass, Phillip A.  
 Young, Jack S. III

### **Jefferson County**

Alexander, Lester T.  
 Ancalmo, Nelson

Anderson, Charles W.  
 Armstrong, Simmie Jr.  
 Atkinson, Evangelina  
 Atkinson, Robbie  
 Atnip, Gwyn  
 Attwood, H.  
 Bell, Carl H. Jr.  
 Blackwell, Banks  
 Bracy, Calvin M.  
 Brooks, R. Teryl Jr.  
 Broughton, Stephen A.  
 Bruton, J. Lewis  
 Buckley, J. Wayne  
 Busby, John  
 Butler, Robert C.  
 Campbell, James C. Jr.  
 Carlton, Irvin L.  
 Cheek, Ben H.  
 Clark, Charles A.  
 Crenshaw, John  
 Davis, Charles M.  
 Davis, Paul W.  
 Dedman, John D.  
 Del Giudice, Jose A.  
 Deneke, William  
 Duckworth, Thomas S.  
 Fendley, Ann E.  
 Fendley, Claude E.  
 Fendley, Herbert F.  
 Flowers, Martha A.  
 Forestiere, Lee A.  
 Freeman, William H.  
 Frigon, Jacquelyn S.  
 Green, Horace L.  
 Gullett, Robert R. Jr.  
 Herzog, John L.  
 Hughes, L. Milton  
 Hussain, Shafqat  
 Hutchison, E. L.  
 Hyman, Carl E.  
 Irwin, Raymond A. Jr.  
 Jacks, David C.  
 Jacks, Dennis  
 James, William J.  
 Jayachandra, Paul David  
 Jenkins, Bobby  
 Jenkins, Mary Ellen  
 Johnson, Horace  
 Jones, James III  
 Joseph, Aubrey S.  
 Justiss, Richard D.  
 Khan, Mahmood A.  
 King, Yum Y.  
 Langston, Lloyd G.  
 Ligon, Ralph E.  
 Lim, William N.

Lindsey, James A.  
 Lum, Don  
 Lupo, David A.  
 Lytle, John O.  
 Mabry, Charles D.  
 Malik, Bilal  
 Marcus, Herschel  
 McDonald, Robert L.  
 McFarland, Mike S.  
 Mehta, Shyam P.  
 Meredith, William R.  
 Miller, Donald L.  
 Milligan, Monte C.  
 Morris, Harold J.  
 Nagappa, Champa  
 Nixon, David T.  
 Nixon, William R.  
 Nuckolls, J. William  
 Pearce, Malcolm B.  
 Pierce, J. R. Jr.  
 Pierce, Reid  
 Pierce, Ruston Y.  
 Pollard, J. Alan  
 Pritchard, Ronald S.  
 Quimosing, Estelita M.  
 Redman, Anna T.  
 Reid, Lloyene B.  
 Rhode, Marvin C.  
 Roaf, Sterling A.  
 Roberson, George V. Jr.  
 Robinette, Joseph S.  
 Rogers, Henry L.  
 Ross, Robert L.  
 Rowe, David E.  
 Samad, Syed A.  
 Samuel, Ferdinand K.  
 Schwartz, Joseph C.  
 Shah, Sailesh N.  
 Shorts, Stephen D.  
 Simmons, Calvin R.  
 Simpson, P. B. Jr.  
 Smith, Paul L.  
 Stern, Howard S.  
 Sullenberger, A. G.  
 Suphan, Neema A.  
 Townsend, Thomas E.  
 Tracy, C. Clyde  
 Trice, James  
 Walajahi, Fawad H.  
 Washington, Erma  
 Wilkins, Walter J. Jr.  
 Wineland, Herbert L.  
 Woods, Jerrye  
 Worrell, Aubrey M. Jr.

### **Johnson County**

Goodman, James David  
 McKelvey, Richard  
 Pennington, Donald H.  
 Shrigley, Guy P.

### **Lafayette County**

Harbin, Bradley  
 Lee, Willie J.

### **Lawrence County**

Boozer, Ann  
 Hughes, Joe E.  
 Joseph, Ralph F.  
 Lancaster, Ted S.  
 Quevillon, Robert D.  
 Spades, Sebastian A. III

### **Lee County**

Balke, Susan W.  
 Gray, Dwight W.  
 Ly, Duong N.  
 Waddy, Leon Jr.  
 Wallace, Charles R.

### **Little River County**

Armstrong, James  
 Peacock, Norman W. Jr.  
 Shelton, Joseph Jr.  
 Swiney, Jennifer R.

### **Logan County**

Alexander, Eugene  
 Borklund, Maurice K.  
 Borklund, Patty  
 Buckley, Douglas A.  
 Daniel, William R.  
 Enns, Wayne P.  
 Harbison, James D.  
 Hasan, Shahzad  
 Roberts, William J.  
 Smith, James T. #  
 Ulrich, Guy  
 Williams, John R.

### **Lonoke County**

Abrams, Joe A.  
 Anderson, Leslie  
 Braswell, Thomas  
 Chapman, Jerry C.  
 Elam, Garrett  
 Gartman, Joseph F.  
 Holmes, Byron E.  
 Inman, Fred C. Jr.



Rochelle, Joe  
Schumann, Gerald M.  
Thomason, Steven L.  
Thorn, Garland M. Jr.

## **Miller County**

Alkire, Carey  
Alston, Thomas  
Andrews, A. E. Jr.  
Barnes, Walter C. Jr.  
Blankenship, D. Michael  
Brown, Sam F. #  
Burroughs, James C.  
Carlisle, David L.  
Chadalavada, Ramesh  
Collins, Stanley  
Cook, Lewis C.  
Cutler, Otis  
Dildy, Edwin V. Jr.  
Ditsch, Craig E.  
Dodd, N. Leland  
Dodge, John M.  
Duncan, Donald L.  
Eichler, Edward A. Jr.  
Ford, John Suffern  
Fournier, Donald C.  
Gabbie, Mark  
Gilleam, John A.  
Graham, John  
Green, R. Clark  
Griffin, Nancy  
Hall, Eric E.  
Hall, Jon D.  
Hamilton, Marshall E.  
Harrell, William B. Jr.  
Harris, C. Lynn  
Hillis, Thomas M.  
Hughes, A. Keith  
Hutcheson, Fred A. Jr.  
Jean, Alan B.  
Jones, John W.  
Joyce, F. E.  
Kemp, Karlton H.  
Kittrell, James  
Knowles, Stanley C.  
Loe, Arlis W.  
Lux, Christopher Lee  
Mayo, Russell  
McGinnis, Robert S. Sr.  
Morris, Howard  
Newton, Norris L. Sr.  
Newton, Norris L. Jr.  
Norris, John A.  
Northam, Wanda M.  
Peckham, Richard W.  
Peebles, Larry M.

Portis, Richard P.  
Robbins, Joseph  
Robertson, William  
Rountree, Glen A.  
Rountree, Susan  
Royal, Jack L.  
Salter, Wm. Richard  
Sarrett, James  
Schmidt, Howard  
Shipp, G. Carl  
Smith, Arnett D. Jr.  
Solomon, J. Alan  
Somerville, Patrick J.  
Soyars, James E.  
Stringfellow, Jerry B.  
Vereen, Lowell E.  
Wade, Billy  
Wilhelm, Frieda  
Wren, Herbert B.  
Wright, James O. III  
Wright, Nathan L.  
Yarbrough, Charles P.  
Young, Mitchell

## **Mississippi County**

Abraham, Anes Wiley  
Abramson, Lawrence  
Bell, Mary C.  
Biggerstaff, Jerry  
Brock, Charles C. Jr.  
Cullom, Sumner R.  
Fairley, Eldon  
Fergus, R. Scott  
Hall, Leslie  
Haynes, Max G.  
Hester, Karen Calaway  
Hester, Richard  
Hubener, Louis F.  
Hudson, James H.  
Husted, G. Scott  
Jones, Herbert  
Jones, Joe V.  
Lin, Ching-Shan  
Lowery, Russell  
Osborne, Merrill J.  
Pollock, George D.  
Rhodes, Joseph  
Rhodes, R. F.  
Rodman, T. N.  
Russell, James D.  
Shahriari, Sia  
Shaneyfelt, E. A.  
Smith, Ronald D.  
Williams, John

## **Monroe County**

Campos, Amador  
Collins, Linda  
David, Neylon C. Jr.  
Pham, Dac Tat  
Pupsta, Benedict F.  
Stone, Herd E. Jr.  
Walker, Walter L.

## **Ouachita County**

Braden, Lawrence F.  
Brunson, Milton  
Crump, Mark  
Daniel, William A.  
Dedman, J. L. Jr. #  
Dedman, William D.  
Floss, Robert  
Fohn, Charles H.  
Guthrie, James  
Hout, Judson N.  
Jameson, John B. Jr.  
Kendall, Jerry R.  
Martin, Dan  
McFarland, Gale  
Miller, John H.  
Mosley, David  
Nunnally, Robert H.  
Ozment, L. V.  
Rayford, Cleveland  
Sanders, Cal R.  
Shrestha, Bal Narayan  
Thorne, Arthur E.

## **Phillips County**

Athota, Prasad J.  
Barrow, John H. Jr.  
Bell, L. J. Patrick  
Bell, L. J. Patrick II  
Berger, Alfred A.  
Epstein, S. Mitchell  
Faulkner, Henry N.  
Frederick, William R.  
Kirkman, C. M. T.  
McCarty, Charles P.  
McCarty, Gordon E. Jr.  
McDaniel, Marion A.  
Michel, Harry  
Miller, Robert D. Jr.  
Nichols, Sandra D.  
Paine, Johnny R.  
Paine, William T.  
Patton, Francis M.  
Rangaswami, Bharathi  
Rangaswami,  
Narayanaswami

Sorsby, Stephen  
Tan, Benjamin  
Tucek, Ladd  
Tukivakala, P. Reddy  
Vasudevan, Kanaka  
Vasudevan, P.  
Winston, William II  
Wise, James E. Jr.

## **Polk County**

Finck, John Henry  
Fried, David D.  
Lochala, Richard  
McClard, Helen  
Mesko, John D.  
Rogers, Henry N.  
Sosa, Humberto J.  
Tinnesz, Thomas  
Wood, John P.  
Wynn, Chester

## **Pope County**

Ashcraft, Ted  
Austin, Nathan  
Bachman, David S.  
Barron, William G.  
Battles, Larry D.  
Beavers, H. Kevin  
Bell, Linda O.  
Bell, Michael  
Bell, Robert A.  
Berner, Dennis W.  
Birum, Patricia J.  
Bradley, Stanley C.  
Brown, Charles H.  
Brown, William Bruce  
Burgess, James G.  
Callaway, Jody C.  
Carter, James M.  
Cloud, Joe A.  
Crouch, James Jr.  
Crumpler, Joe B. Jr.  
Dunn, Donald L.  
Ferris, Craig A.  
Galloway, William W.  
Gately, Stanley  
Goodman, Robin Quinn  
Haines, Lynn  
Harrison, Rick  
Hendren, Mike  
Henry, J. Arnold  
Hill, Donald F.  
Hines, Cynthia C.  
Honghiran, Ted  
Jones, Charles Jr.

Kerin, Douglas  
Killingsworth, Stephen M.  
King, John W.  
King, W. Ernest Jr.  
Kolb, James M. Jr.  
Lawrence, Frank M.  
Lovell, Richard K. Sr.  
Lowrey, Douglas H.  
Lyford, Joe H. Jr.  
Malone, George E.  
Marshall, Glenn E.  
Massey, V. Rudolph  
Mauch, E. Jane  
May, Robert H. Jr.  
Meyer, Kelly H.  
Moble, Max J. #  
Monfee, Andrew M.  
Murphy, David S.  
Myers, J. Mark  
New, Kenneth O.  
Richison, George C.  
Riddell, C. Michael  
Riley, Don C.  
Soto, Sergio F.  
Stinnett, Thomas  
Stolz, Gerald A. Jr.  
Tapley, Thomas S.  
Teeter, Stanley D.  
Thurlby, W. Robert  
Turner, Finley P. II  
Turner, Kenneth B.  
White, Ronald  
Wilkins, Charles F. Jr.  
Williams, David M.

### **Pulaski County**

Abbott, William W.  
Abel, Lee C.  
Abraham, James H.  
Abraham, James H. III  
Adametz, James  
Adametz, John  
Adams, Christopher  
Adamson, James  
Alexander, Albert S.  
Alford, T. Dale  
Allen, Durward Jr.  
Allen, John E. Jr.  
Alston, Phillip  
Amir, Jacob  
Andersen, Bruce J.  
Angeles, Jana  
Aquino, Al  
Araoz, Carlos  
Archer, Robert L.  
Armstrong, Howard  
Arrington, Robert  
Astle, Hal  
Atha, Timothy C.  
Atkinson, William Jr.  
Austin, R. Lee #  
Baber, John C. Jr.  
Baber, John T.  
Backus, Joe T.  
Bailey, H. A. Ted Jr.  
Baker, Glen F.  
Baker, John W.  
Baker, Johnson  
Baldwin, Maxwell R.  
Baltz, Brad Patrick  
Barber, Jeffrey  
Barber, Laurie  
Barclay, David  
Bard, David S.  
Barger, Denver L.  
Barlow, Brian E.  
Barnes, C. Lowry  
Barnes, Reginald  
Barnes, Robert W.  
Barnett, David  
Barnett, Troy F.  
Barron, Edwin N. Jr.  
Bartnicke, Benjamin J.  
Barton, Gary  
Baskin, Barry  
Bates, Ramona  
Bates, Stephen  
Batres, Francisco  
Bauer, F. Michael  
Bauer, Frank M. Jr.  
Bauman, David C.  
Bayliss, John M.  
Beadle, Beverly  
Bearden, James R.  
Beaton, J. Neal  
Beck, Joseph II.  
Becquet, Norbert J.  
Belknap, Melvin L.  
Bell, Rex H.  
Bennett, Eaton W.  
Bennett, F. Anthony Jr.  
Benton, William  
Berry, Robert L.  
Bevans, David W. Jr.  
Bienvenu, Gregory  
Bienvenu, Harold G. III.  
Bierle, Michael  
Billie, James  
Biondo, Raymond V.  
Birkett, Ian McRae  
Bishop, William B.  
Biton, Victor

Bitzer, Lon  
Black, H. Thurston  
Blackshear, Jack L. Jr.  
Blankenship, William F.  
Blasier, R. Dale  
Boehm, Timothy  
Boellner, Samuel W.  
Boger, James E.  
Book, Lindy  
Boop, Frederick  
Boop, Warren C. Jr.  
Boos, Donald Jr.  
Bornhofen, John H.  
Bost, Roger B.  
Bourne, David E.  
Bowden, Phillip  
Bowen, W. Scott  
Bower, Charles M.  
Boyd, Charles M.  
Boyle, Ronald H.  
Bozeman, Barbara J.  
Bradburn, Curry B. Jr.  
Bradford, J. David  
Bradley, Joe F.  
Brainard, Jay O.  
Bressinck, Renie E.  
Brewer, Robert  
Brewer, Thomas E.  
Brimberry, Ronald K.  
Brineman, John  
Brinkley, Roy A.  
Brizzolara, A. J.  
Brizzolara, John Paul  
Broach, R. Fred  
Broadwater, John Ralph Jr.  
Brown, Michael  
Brown, Pamela S.  
Brown, Scott H.  
Brown, Steven L.  
Browning, Donald G.  
Browning, Stanley K.  
Brunson, Ashley  
Bryan, James W. IV.  
Buchanan, Francis R.  
Buchanan, Gilbert A.  
Buchman, Joseph A.  
Buchman, Joseph K.  
Bucolo, Anthony P.  
Budhraj, Madhu S.  
Budhraj, Meenakshi  
Buford, Joe L.  
Burger, Robert A.  
Burnett, Hugh F.  
Burnett, P. Susan  
Burrow, Dennis R.  
Butcher, Joan R.

Byrum, Jerry  
Calcote, Robert A.  
Calderon, Vincent Jr.  
Calhoon, J. Dale  
Calhoun, Joseph D.  
Calhoun, Richard A.  
Campbell, Gilbert S.  
Campbell, James W.  
Campbell, Leah S.  
Caplinger, Kelsy J. III  
Capps, Dwight II  
Carfagno, Jeffrey  
Carnahan, Robert G. #  
Carson, Layne E.  
Carter, Jerry L.  
Carttar, Charles  
Caruthers, Carol  
Caruthers, Samuel B. Jr.  
Cash, Darlene  
Casper, Robert B.  
Casteel, Helen  
Cathey, Janet  
Cathey, Steven  
Cavin, Lillian  
Chakales, Harold H.  
Chappell, Carol W.  
Cheairs, David B.  
Cheairs, John T.  
Chisholm, Dan P.  
Choate, Robert B.  
Christeson, William W. #  
Christian, John D.  
Christiansen, Stephen P.  
Chudy, Amail  
Church, Marion M.  
Clark, J. Roger  
Clark, Richard B.  
Clift, Steven A.  
Clifton, Cliff  
Cobb, Jock S.  
Cockrill, H. Howard Jr.  
Cogburn, Bob E.  
Colclasure, Joe B.  
Collins, David  
Collins, Kevin J.  
Cone, John  
Cope, Michael  
Corbitt, Mary  
Cornell, Paul J.  
Cosgrove, Kingsley W. Jr.  
Coussens, David M.  
Craig, Marion S. Jr. #  
Crawford, Cary M.  
Crocker, Charles H.  
Cross, J. B.  
Crow, Joe W.



Crow, R. Lewis Jr.	Fiser, Robert H. Jr.	Hagler, James L.	Hickey, Joseph P.
Crowell, Karen D.	Fiser, William P. Jr.	Hahn, Herbert	Hicks, David C.
Curtner, Byron D.	Fisher, Robert A. #	Hall, A. D.	Hicks, David L.
Darwin, William G.	Fitzgerald, Charles	Hall, A. David	Hixson, Marcia Lynn
Daugherty, Joe D.	Fitzhugh, A. Stuart	Hall, R. Whit	Hodges, J. Timothy
Daugherty, John L.	Flack, James V. Jr.	Hamilton, George Jr.	Hodges, Steven C.
Davie, Melanie	Flaming, Jay	Hampton, John R. III	Hoffmann, Thomas H.
Davis, Brett C.	Flanigan, Stevenson	Hankins, Edwin III	Holland, Jay D.
Davis, Glenn R.	Fletcher, Elizabeth D.	Harber, Harley	Hollenberg, Henry G. #
Davis, J. Lynn	Fletcher, Thomas M.	Hardberger, R. E.	Holloway, J. Douglas
Dean, David M.	Floyd, Bill G.	Hardin, Robert	Holmes, Harlan C. #
Dean, Gilbert O.	Foster, Gil	Hardin, Ronald D.	Holt, Stephen
Deaton, C. William Jr.	Fraiser, Lacy P.	Harger, C. Harold	Holton, Jerry C.
Deer, Philip J. Jr.	France, Gene L.	Hargrove, Joe L.	Hough, Aubrey J. Jr.
Deer, Philip James III	Fraser, Eric A.	Harper, Ernest H.	Houk, Richard
Dennis, James L.	Frazier, Cynthia	Harper, Gary E.	Houston, Samuel
DesLauriers, S. Killeen	Frazier, G. Thomas	Harrendorf, Cagle	Howell, Coburn S. Jr.
Dickins, John R. E.	Freeman, Diane	Harrington, Mariann	Howell, Marsha T.
Dickins, Robert D. Jr.	Fuller, C. Dale	Harris, Donald R.	Hughes, Ronald D.
Dickson, D. Bud	Fuller, C. James III	Harris, T. Stuart	Hundley, John M.
Dilday, James 'Kurt'	Fulmer, John M.	Harris, W. Turner	Hundley, Randal F.
Dillard, Daniel C.	Galbraith, Robert C.	Harrison, A. Vale	Hutchins, Steven W.
Diner, Bradley	Gardner, Guy F.	Harrison, Roy E.	Hutson, Harold G.
Dixon, Keith A.	Gettys, Joseph M. Jr.	Harrison, William	Jackson, J. Presley
Dodd, Doyne	Gibbs, Mark	Harshfield, David Lee Jr.	Jackson, Morris A. #
Doncer, Richard P.	Gibson, Gordon L.	Hart, Thomas M.	Jackson, Thomas
Doucet, Marlon J.	Giglia, Anthony R. III	Harter, Scott	Jansen, G. Thomas
Douglas, Warren M.	Giles, Wilbur M.	Hauer-Jensen, Martin	Jefferson, Terry
Downs, Ralph A.	Gillespie, A. Tharp	Hawley, Harold B.	Johnson, Anthony D.
Dungan, William T.	Gilliam, David	Hayden, William F.	Johnson, B. Richard
Dwyer, Gregory A.	Gist, Charles C.	Hayes, J. Harry Jr.	Johnson, Ben D.
Eans, Thomas L.	Glenn, Wayne B.	Hayes, Richard L.	Johnson, Carl
Easter, Rex M.	Glidden, Michael L.	Hayes, Sidney P.	Johnson, Dianne Flowers
Edge, Otis H.	Glover, Lawson E. Jr.	Haynes, W. Ducote	Johnson, Henry D.
Edmiston, Frank G.	Glover, W. Clyde	Headstream, James W.	Johnson, M. Bruce
Eisenach, R. Jeffery	Golden, William E.	Hearnsberger, H. Graves III	Johnson, Philip H.
English, Jim	Goldsmith, Geoffrey	Hearnsberger, Henry G. Jr.	Johnston, Dale E.
Eudy, Sidney	Good, Henry H.	Hearnsberger, John E.	Johnston, Kenneth
Evans, Billy	Gordon, Vida H.	Hedges, Harold IV.	Jones, Eugene
Evans, Clifford L.	Gosser, Bob L.	Hedges, Harold H.	Jones, Gail Reede
Evans, Samuel C.	Goza, George M. Jr.	Hefley, Bill F.	Jones, Garry L.
Eyre, Byron L.	Granger, William III	Hefley, William Jr.	Jones, John C.
Farmer, Joseph F.	Grant, Karen G.	Henker, Fred O. III	Jones, Kathleen C.
Farque, Greg L.	Green, Benny J.	Henry, C. Reid Jr.	Jones, Robert D.
Farris, Guy R. Jr.	Green, William O. III #	Henry, Charles R. Sr.	Jones, Roy Steven
Fawcett, Deborah Dee	Greenway, C. Don	Henry, D. Andrew	Jones, S. Michael
Fazekas-May, Mary	Greer, Christopher	Henry, G. Michael	Jones, William N.
Fernandez, Agustin	Greer, G. Stephen	Henry, G. Morrison	Jordan, F. Richard
Ferris, Ernest J.	Greutter, John E. Jr.	Henry, J. Charles	Jordan, Randy A.
Fewell, Ronald D.	Griebel, Jack A. Jr.	Henry, J. Forrest Jr.	Joseph, Ralph F. II
Fielder, Charles R.	Grimes, H. Austin	Henry, Richard Y.	Joseph, William Frank
Fields, Patrick R.	Guard, Peggy K.	Henry, Robert L. Jr.	Jouett, W. Ray
Finan, Barre F.	Guggenheim, Frederick G.	Henry, William T.	Joyce, John W.
Fincher, Robert L.	Guin, Jere D.	Herbert, R. Wayne	Junkin, Ruth H.
Finkbeiner, Alex E.	Gurley, Thomas D.	Herron, Jerry M.	Kaemmerling, Raymond E.
Fiser, Martin	Hagans, James III	Herron, John T.	Kahn, Alfred Jr.

Kane, James J.  
 Keathley, Susan A.  
 Keeran, Michael G.  
 Kellar, Stanley L.  
 Keller, Alfred W.  
 Keller, Kevin  
 Kelly, Karen  
 Kennedy, Charles H.  
 Kennedy, Eleanor E.  
 Kennedy, H. Frazier  
 Ketcham, Jeffrey  
 Key, J. Michael  
 Khan, Shagufta P.  
 Kilgore, Reed W.  
 King, Michael T.  
 King, W. David  
 Kittler, Fred J.  
 Kizziar, Jim C.  
 Klein, E. F. 'Bud' Jr.  
 Klimberg, V. Suzanne  
 Knott, Patricia A.  
 Knox, Michael F.  
 Kolb, Agnes J.  
 Kolb, David  
 Kolb, W. Payton  
 Koonce, Thomas W.  
 Kovalski, Thomas M.  
 Kozberg, Oscar #  
 Kozlowski, Karen J.  
 Kramm, Paul C.  
 Krulin, Gregory S.  
 Kumpuris, Andrew G.  
 Kumpuris, Dean  
 Kumpuris, Frank G.  
 Kyser, J. Floyd  
 Laakman, Robert W.  
 Lam, Bryon L.  
 Lambert, Robert A.  
 Landers, James H.  
 Landgren, Robert C.  
 Lane, John W.  
 Lang, Nicholas P.  
 Langford, Timothy  
 Langston, Harold D. #  
 Laurenzana, Donald A.  
 Lawson, Mason G. #  
 Lehmberg, Robert W.  
 Leibovich, Marvin  
 Leithiser, Richard Jr.  
 Leonard, Donald G.  
 Leou, Frank J.  
 Lewis, Derek  
 Lewis, W. Sexton #  
 Lile, Henry A.  
 Lincoln, Ben M.  
 Lipke, Jay M.

Loeb, Edward C.  
 Logan, Charles W.  
 Love, Tommy L. Jr.  
 Lowe, Betty A.  
 Lucy, Dennis D. Jr.  
 Ludwig, Frank R.  
 Luttrell, Rex E.  
 Lyons, Virgle E. Jr.  
 Mabrey, William  
 Magie, Stephen K.  
 Mallory, John A.  
 Maloney, F. Patrick  
 Malott, Jerry D.  
 Maners, Ann  
 Mann, R. Jerry  
 Marable, Charles T.  
 Markland, Gary S.  
 Marks, Stephen R.  
 Martin, Kenneth A.  
 Martin, Richard H.  
 Mason, J. Zachary  
 Mason, William L.  
 Matthews, Joseph W.  
 McAdoo, Hosea W. Jr.  
 McCarthy, Richard E.  
 McConnell, John D.  
 McCracken, Gail Ann  
 McCracken, John  
 McCrary, George A.  
 McCutcheon, Frank B. Jr.  
 McDonald, James E.  
 McDonald, Judy  
 McGowan, Robert Jr.  
 McGrew, Robert N.  
 McKelvey, K. David  
 McKinney, Carl  
 McKnight, C. Allen  
 McLeane, Mark  
 McMillan, James A.  
 McMillin, F. Lamar Sr.  
 McNair, James R.  
 McNee, Valerie  
 Meacham, Donald F.  
 Meador, Annette Parker  
 Meadors, Frederick  
 Medlock, Rickey D.  
 Mehta, Madhu  
 Mellor, Roy II  
 Mendelsohn, Lawrence A.  
 Metrailler, James A.  
 Metzger, W. Steve  
 Meziere, Tom  
 Miers, Jane F.  
 Miles, David A.  
 Miller, Forrest B. Jr.  
 Miller, Raymond P. Sr.

Milner, E. L.  
 Mitchell, George K.  
 Mizell, Philip  
 Mizell, Walter S.  
 Moffett, T. Robert Jr.  
 Money, Wandal D.  
 Montanez, Josue  
 Mooney, Donald K.  
 Moore, Burton A.  
 Moore, J. Malcolm Jr.  
 Moore, Michael  
 Moore, Rex N.  
 Moore, Robert B.  
 Moore, Thomas  
 Morris, Barbara  
 Morris, W. Dale  
 Morrison, Debra F.  
 Morse, James C.  
 Morton, William J.  
 Mulhollan, James S.  
 Mumme, David  
 Murphy, Bruce  
 Murphy, James E. Jr.  
 Murphy, Jeanne  
 Murphy, Joseph  
 Murphy, Randolph  
 Murphy, Robert  
 Murphy, Tena  
 Nagel, Fred G.  
 Nash, John C.  
 Nelson, Alvah J. III  
 Nelson, Carl L.  
 Nestrud, Richard M.  
 Newbern, David  
 Newsum, Jon Kirby  
 Newton, Fred E.  
 Nix, Richard A.  
 Nokes, Steven  
 Nolen, James E.  
 Norris, Lloyd P.  
 Norton, George A.  
 Norton, Joseph A.  
 Nowlin, James Bill  
 Nugent, Richard  
 O'Neal, Walter H. #  
 Oates, Gordon P.  
 Oddson, Terrence A.  
 Ogden, Mahlon D. #  
 Oglesby, Walter R.  
 Osam, Patrick N.  
 Osteen, Paul  
 Overacre, Robert  
 Owen, Richard Jr.  
 Owings, Debra  
 Owings, Richard  
 Ozment, Kerry

Padberg, Frank T.  
 Paddock, George  
 Padilla, Fernando  
 Pahls, Wendell Lee  
 Pappas, James J.  
 Parker, J. Mayne  
 Parkhurst, James  
 Parmley, Tim  
 Parnell, Clifton L. III  
 Paulus, Thomas E.  
 Pearce, Charles E.  
 Peeples, R. Earl  
 Peters, John E.  
 Peters, Phillip J.  
 Petrash, Anton 'Tony'  
 Petrus, Gary M.  
 Petursson, Gissur J.  
 Pevahouse, Joe  
 Phillips, Charles E.  
 Phillips, Hannah  
 Pierce, William  
 Pike, John D.  
 Pledger, Norman R.  
 Pollard, Arlee E.  
 Pollock, Michael Marion  
 Pope, Norton A.  
 Porter, Robert Jr.  
 Potts, Jerry L.  
 Power, Robert C.  
 Prather, Jerry L.  
 Pringos, Andrew A.  
 Purdy, Harold D.  
 Pyle, Hoyte R. Jr.  
 Quirk, J. Gerald  
 Ransom, John M.  
 Raque, Carl J.  
 Ray, V. Gail  
 Rector, Nancy F.  
 Reding, David L.  
 Redman, John F.  
 Reed, Ewing C. Jr.  
 Reese, William G.  
 Reid, Gene W.  
 Rimmel, Raymond  
 Rice, Charles  
 Rice, James Curtis  
 Rice, Robert L.  
 Riddle, John F. Jr.  
 Riegler, N. W. Jr. #  
 Riley, William H.  
 Ritchie, Robert Ross  
 Robbins, Kenneth  
 Roberson, Michael C.  
 Roberts, Kevin  
 Rodgers, C. Dudley  
 Rodgers, Charles H.



Rogers, Charles Jr.	Smart, Douglas F.	Thompson, John R.	Williams, G. Doyne Jr.
Rooney, Thomas P.	Smelz, Johnny	Thompson, S. Berry Jr.	Williams, Paul E.
Rosenbaum, Carl A.	Smith, Aubrey C.	Thompson, Steven M.	Williams, Ronald N.
Ross, Ashley Sloan	Smith, Charles W. Jr.	Thomsen Hall, Kathleen	Williamson, Adrian III
Ross, Cynthia	Smith, David E.	Thorn, G. Max	Wills, Pamela
Ross, Robert W.	Smith, Douglas B.	Tilley, Steve	Wilson, Elaine
Ross, S. William	Smith, G. Richard Jr.	Tobler, H. Gareth	Wilson, Frances C.
Rotherth, Frances C. #	Smith, James L.	Tolleson, Claudia	Wilson, Frank J. Jr.
Rounsaville, Harry L.	Smith, Mose III	Towbin, Eugene J.	Wilson, I. Dodd
Roy, F. Hampton	Smith, Purcell Jr.	Tracy, Phillip A.	Wilson, James M.
Ruggles, Dwayne L.	Smith, Thomas J.	Tranum, Bill L.	Wilson, James W.
Runyan, William A.	Smith, Thomas W.	Tressler, Samuel D. III	Wilson, John L.
Russell, James B.	Smith, Tom	Tseng, Jyi-Ming	Wilson, R. Sloan
Rutherford, Reginald J.	Snyder, Victor F.	Tucker, R. Stephen	Wolverton, John
Rutledge, William L.	Somers, A. Jack	Tucker, W. Everett	Workman, W. Wayne
Saer, Edward H. III	Sorrells, R. Barry	Valentine, Robert G. Jr.	Worley, Linda
Salmeron, Manuel	Sotomora, Ricardo F.	Vaughter, W. Roger	Wortham, Thomas H.
Santoro, Ian H.	Squire, Arthur E. Jr.	Velez, Duane	Wyatt, Richard A.
Satre, Richard W.	St Amour, Thomas E.	Vinsant, Kurtis	Yamauchi, Terry
Schellhase, Dennis E.	Stallings, Walt	Vogel, Robert G.	Yocum, John
Schlesinger, Scott Michael	Stanley, Joe P.	Wade, William I. Jr.	Young, Douglas E.
Schlicht, Lisa	Stanley, Robert	Wagoner, Jack	Young, Scott M.
Schock, Charles C.	Steele, William L.	Walker, Lee	Yousuff, Sarah S.
Schratz, Bruce E.	Stefans, Vikki Ann	Walker, Ronald	Zelnick, Paul
Schroeder, George T.	Stern, Scott Jeffrey	Walt, James R.	Ziller, Stephen A. III
Schultz, John C.	Sternberg, Jack J.	Waner, Milton	Ziomek, Stanley
Schutz, Michael J.	Stewart, Daryl	Ward, Harry P.	Zuerlein, Terrance
Schwander, L. Howard	Stewart, Marguerite R.	Ward, Joseph P.	
Schwankhaus, John D.	Stewart, Tracy D.	Ward, Thomas	<b>Randolph County</b>
Scott, Don I.	Stokes, Bernard	Warford, Walton R.	Baltz, Albert L.
Scruggs, Jan W.	Storeygard, Alan R.	Warren, William Jr.	DeClerk, Thomas
Searcy, Robert M.	Stotts, John R.	Watkins, Charles J.	Guntharp, George
Seibert, Joanna J.	Stout, Kimber	Watkins, John Jr.	Holt, Danny B.
Seibert, Robert	Strauss, Mark	Watkins, John G. III	Jansen, Andrew J. III
Selakovich, Walter G.	Strode, Steven W.	Watkins, Julia	Scott, William W.
Sessions, Louis II	Stroope, George F.	Watkins, Larry S.	Smith, Norman K.
Sheppard, Joseph	Studdard, James D.	Watson, C. Robert	
Shock, John P.	Sturdivant, Stephen	Watson, Daniel W.	<b>Saline County</b>
Short, Harold K.	Suen, James	Watson, Vye B.	Ashby, Robert
Shotts, Joseph	Sulieman, J. Samir	Weber, Edward R.	Baber, Quin M.
Shuffield, James	Sullivan, Charles D.	Weber, James R.	Bethel, James
Silvoso, Gerald R.	Sullivan, Jan R.	Weber, Michael	Burton, Charles R.
Simmons, Orman W.	Sundermann, Richard H.	Weiss, David W.	Burton, Charles R.
Simpson, N. Henry Jr. #	Swindoll, Bryant S.	Weiss, Gerald N.	Caldwell, David L.
Sims, James M.	Talbert, Gary Eugene	Welch, Samuel Bradley	Cash, Ralph D.
Singer, Peter	Talbert, Michael	Wellborn, James C. Jr.	Chaffin, Raines
Singleton, L. Gene	Tamas, David E.	Wellons, James A. Jr.	Coker, S. Dale
Sinor, Elicia	Tanner, James A.	Wende, Raymond A.	Cooper, James B.
Sipes, Frank M.	Taylor, David R.	Wenger, Carl E.	Cornwell, Samuel L. #
Skokos, C. Kemp	Taylor, Eugene H.	Westbrook, Kent C.	Council, Robert A. Jr.
Slater, John G. Jr.	Tedford, John G.	Westerfield, Frank M. Jr.	Dockery, Melissa
Slaven, John E.	Teplick, Steven	White, Oba B.	Duncan, J. Shelby
Slayden, John E.	Texter, E. Clinton Jr.	Wilkes, Elbert H.	Eaton, James M.
Sloan, Eugene E.	Thomas, A. Henry	Wilkes, T. David I.	Enderlin, Annette
Sloan, Fay M.	Thomas, Peter O.	Williams, Alonzo D.	Gardner, Dan R.
Sloan, James M.	Thompson, A. Reed	Williams, C. David	Hill, Edward B.
			Hill, Howell V.

Hogue, F. Paul  
 Johnston, Greg  
 Kirk, Marvin N. Jr.  
 Martindale, J. L.  
 Martindale, Mark A.  
 Ramsay, Rex C. Jr.  
 Schmidt, Michael J.  
 Stewart, David L.  
 Sudderth, Brian F.  
 Taggart, Sam D.  
 Thibault, Frank G. Jr.  
 Thomas, Bill R.  
 Thorn, Harvey Bell Jr.  
 Tilley, Roger L.  
 Vice, Mark  
 Viner, Donald L.  
 Watson, Kirk D.  
 Wright, John D.

### Sebastian County

Acklin, Jimmy D.  
 Albers, David G.  
 Alberty, Joe  
 Anderson, Paul  
 Armstrong, Sinclair Jr.  
 Ashcraft, Cynthia K.  
 Atkins, Jimmie G.  
 Bailey, Charles W.  
 Baker, Max A.  
 Balsara, Zubin  
 Barker, Robert Jr.  
 Barnes, L. Ford  
 Barr, Marilyn  
 Barry, James Jr.  
 Beachy, Allen L.  
 Berryhill, Richard E.  
 Berumen, Mike  
 Best, Timothy R.  
 Bise, Roger N.  
 Bodiford, Gary L.  
 Bordeaux, Ronald A.  
 Bouton, Michael  
 Bradford, A. C.  
 Brown, Byron L.  
 Brown, James A.  
 Brown, Richard  
 Buie, James H.  
 Builteman, Cynthia  
 Builteman, James  
 Burks, Deland  
 Busby, J. David  
 Cain, Martin  
 Callaway, Michael  
 Carson, Randall L.  
 Carter, D. Mike  
 Cassady, Calvin R.

Chalfant, Charles  
 Chester, Robert L.  
 Cheyne, Thomas  
 Chosney, Bruce  
 Coffman, Edwin L.  
 Coleman, Michael D.  
 Cook, Charles  
 Craft, Charles  
 Crow, Neil E. Sr.  
 Crow, Neil E. Jr.  
 Culp, William C.  
 Davenport, O. Leo  
 Deaton, John M.  
 Deneke, James S.  
 Diment, David D.  
 Dorzab, Joe H.  
 Drolshagen, Leo F. III  
 Dudding, William F.  
 Edwards, Gary  
 Ellis, Homer G.  
 Ennen, Randy  
 Faier, Samuel #  
 Feder, Frederick P. Jr.  
 Feezell, Randall E.  
 Feild, T. A. III  
 Felker, Gary V.  
 Ferrell, Jeffrey  
 Fisher, Robert D.  
 Flanagan, A. Dean  
 Fleck, Randolph Peter  
 Fleck, Rebecca  
 Flippin, Tony A.  
 Florian, Thomas  
 Floyd, Charles H.  
 Francis, Darryl R. II  
 Franz, F. Perry  
 Frederick, James A.  
 Gardner, Kenneth  
 Gedosh, Edgar A.  
 Gill, James A.  
 Girkin, R. Gene  
 Glover, D. Bruce  
 Goodman, R. Cole Jr.  
 Goodman, Raymond C. Sr.  
 Griggs, William L. III  
 Gwartney, Michael P.  
 Hamilton, Lance  
 Hanley, Larry L.  
 Harmon, Pamela  
 Harris, Shirley D.  
 Hathcock, Alfred B.  
 Heim, Stephen  
 Hendrickson, Jon  
 Herren, Adrian L.  
 Hewett, Archie L.  
 Hewett, Mark Alan

Hoffman, John D.  
 Hoge, Marlin B.  
 Holmes, Williams C. Jr.  
 Hornberger, Evans Z. Jr.  
 Howell, James T.  
 Hughes, Robert P. Jr.  
 Hunton, David W.  
 Hunton, Teresa H.  
 Huskison, William T.  
 Ingram, Ralph N.  
 Irwin, Peter J.  
 Ivey, Traci  
 Jaggars, Robert  
 Janes, Robert H. Jr.  
 Jefferson, Christina M.  
 Jefferson, Thomas C.  
 Jones, Greg T.  
 Jones, W. Duane  
 Kareus, John L.  
 Kelly, Thomas C.  
 Kelsey, J. F.  
 Kientz, John Jr.  
 Kinard, Hugh  
 Klopfenstein, Keith  
 Knight, William E.  
 Knobloch, Ronald  
 Knox, Robert  
 Knubley, William A.  
 Kocher, David B.  
 Koenig, A. Samuel III  
 Koenig, Albert S. Jr.  
 Kradel, R. Paul  
 Kraemer, Soren R.  
 Kramer, Ralph G.  
 Kutait, Kemal E.  
 Kyle, W. Lamar  
 Lambiotte, Louis O.  
 Landherr, Edwin  
 Landrum, Annette V.  
 Landrum, Samuel E.  
 Lane, Charles S. Jr.  
 Lange, John L.  
 Lenington, Jerry O.  
 Lilly, Ken E.  
 Little, Charles  
 Lockwood, Frank M.  
 Long, James W.  
 Loyd, Gregory M.  
 MacDade, Albert D.  
 Magness, Jack L. Jr.  
 Manus, Stephen C.  
 Marsh, Michael A.  
 Martimbeau, Claude  
 Martin, Art B.  
 Martin, Rick  
 Marvel, Jeffrey

Masri, Hassan M.  
 Mauroner, Richard F.  
 Maxey, Craig  
 McCarty, Joseph  
 McClain, Merle  
 McClanahan, J. David  
 McCoy, Mark  
 McCraw, Gordon  
 McEwen, Stanley R.  
 McKinney, Robert  
 McMinimy, Donald  
 Meador, Don M.  
 Mehl, John Kurt  
 Miller, Robert M.  
 Mings, Harold H.  
 Moore, Trudy J.  
 Mosley, Myra C.  
 Moulton, Everett C. Jr.  
 Moulton, Everett C. III  
 Mumme, Marvin E.  
 Murphy, Anne L.  
 Muylaert, Michel  
 Nassri, Louay K.  
 Nelson, Steve B.  
 Nichols, David R.  
 Niemann, Jeffrey M.  
 Olson, John D.  
 Paris, Charles H.  
 Parker, Douglas W. Jr.  
 Parker, Joel E. Jr.  
 Parker, Thomas G.  
 Payson, Tony A.  
 Pearce, Larry W.  
 Peluso, Francis  
 Pence, Eldon D. Jr.  
 Phillips, Don  
 Phillips, Kevin Clark  
 Phillips, Sumer  
 Phillips, Tonya  
 Phillips, W. P.  
 Pillstrom, Lawrence G.  
 Poole, M. Louis  
 Pope, John R.  
 Porter, Neill C.  
 Post, James M.  
 Prewitt, Taylor A.  
 Price, Lawrence C.  
 Rabideau, Dana P.  
 Raby, Paul L.  
 Raymond, Thomas H.  
 Rivera, Raul  
 Robinson, Ronald P.  
 Rosenzweig, Kenneth  
 Russell, Rex D.  
 Sanders, Robert V. III.  
 Saviers, Boyd M.



Schemel, William H.  
Schroeder, Cygnet  
Schwarz, Julio  
Schwarz, Paul R.  
Seiter, Kenneth  
Shahbandar, A. B.  
Sherrill, William M. Jr.  
Smith, Kent  
Smith, Terrald J.  
Snider, James R.  
St. Clair, Kevin  
Standefer, J. Michael  
Stanton, William B.  
Stewart, Jerry R.  
Stewart, John B.  
Still, Eugene F. II  
Studt, James  
Sull, Won J.  
Swicegood, John R.  
Taft, Eileen  
Taft, Eric

Tait, Amy  
Thompson, J. Kenneth  
Thompson, Robert J.  
Torres, Stephen  
Trent, Judy  
Turner, William F.  
Van Asche, Christopher  
Vanderpool, Roy E.  
Vernon, Rowland P. Jr.  
Waack, Timothy  
Wahman, Gerald E.  
Wallace, Kenneth K.  
Webb, William K.  
Weisse, John J.  
Wells, John D.  
Westbrook, Michael R.  
Westerfield, Samuel  
Westermann, Norman F.  
White, J. Earle III  
Whiteside, Edwin  
Wikman, John H.  
Williams, Carl L.  
Wills, Paul I.  
Wilson, Morton C.  
Wolfe, Michael S.  
Woods, Leon P.  
Wright, C. Kent  
Zufari, Munir M.

### **Sevier County**

Buffington, Mike  
Couture, Susan E.  
Hoyt, Jonathan  
Jones, Charles N.

Mielnick, Alina  
Shefa, Ahmad Zia

### **St. Francis County**

Ajamoughli, Ghaith  
Collins, E. Morgan Jr.  
Conner, George  
Crawley, Charles E.  
DeRossitt, James P. III  
Edwards, Carl B.  
Fong, Fun Hung  
Hammons, Edward P.  
Kumar, Sudhir  
Lopez, Ramon E.  
McGuire, Samuel A. III  
Meredith, James Jr.  
Patton, W. Curtis  
Schwartz, Frank R.  
Turner, Robert  
Webber, David L.

### **Tri-County County**

Ablog, Angel Diego  
Arnold, Carl  
Arnold, Griffin II.  
Benton, Thomas H.  
Bozeman, Jim G.  
Campos, Louis  
Ducker, David E.  
Graham, Paul A.  
Grasse, A. Meryl  
Grasse, John Jr.  
Helmling, Robert L.  
Jackson, George W.  
Krygier, Albin J.  
Lane, Robert C.  
Moody, Michael N.  
Relyea, William V.  
Tatum, Harold M.  
Van Ore, Stevan Michael  
Wright, Donald

### **Union County**

Abbott, Judy  
Anzalone, Gary  
Arceneaux, Matt  
Barenberg, Andrew  
Barenberg, Robert  
Bass, Edward J. #  
Bevill, Gary L.  
Booker, J. Gregory  
Bowman, Raymond N.  
Bryant, D'Orsay III  
Callaway, Matthew Dates  
Carroll, Peter J.

Cyphers, Charles D.  
Davis, Richard K.  
Deere, Joy  
Dougherty, Bert  
Dunn, Tom L.  
Duzan, Kenneth R.  
Elliott, Wayne G.  
Ellis, Jacob P.  
Fitch, Leston E.  
Forward, Robert B.  
Fraser, David B.  
Hill, Grady Jr.  
Jenkins, Chester W.  
Jones, Steve A.  
Jucas, Diana T.  
Jucas, John J.  
Kang, Gurprem Singh  
King, Billy D.  
Landers, Gardner H.  
Menendez, Moises A.  
Murfee, Robert M.  
Ong, Tie S.  
Pillsbury, Richard C.  
Pirnique, Allan S.  
Ratcliff, John  
Ray, Robin Phinney  
Rogers, Henry B.  
Sample, Dorothy C.  
Sarnicki, Joseph  
Schultz, Wayne H.  
Scurlock, William R.  
Seale, James E. Jr.  
Smith, George W.  
Stevens, Willis M. Jr.  
Talley, H. Aubry  
Thibault, Frank G. Sr. #  
Tommey, C. E.  
Tommey, Robert C.  
Turnbow, R. L.  
Ulmer, Minna I.  
Vasan, Srin  
Warren, George W.  
Weedman, James B.  
Williamson, John R.  
Wilson, Larkin M. Jr.  
Yocum, David M. Jr.  
Zahniser, Donna J.

### **Van Buren County**

Hall, John A.  
Pearce, Charles G.  
Smith, James F.  
Starnes, Harry  
Stuteville, Orion H. #

### **Washington County**

Abernathy, Bryan  
Albright, Spencer III  
Applegate, C. Stanley Jr.  
Arnold, James  
Atwood, H. Daniel  
Bailey, Donald  
Bailey, Scott  
Baker, C. Murl Jr.  
Baker, Donald B.  
Baker, James  
Beckman, James Jr.  
Blankenship, James  
Bond, Walter M. #  
Bonner, Mark  
Box, Ivan H.  
Boyce, John M.  
Bredfeldt, Raymond  
Brooks, D. Wayne  
Brooks, W. Ely  
Brown, Bruce B. Jr.  
Brown, Craig  
Brown, David L.  
Brunner, John A. III  
Burnside, Wade W. Jr.  
Burton, Anthony R.  
Butler, G. Harrison  
Cale, Charles  
Cameron, Mark  
Carver, Joel D.  
Chase, Patrick R.  
Cherry, James F.  
Churchill, David  
Coker, Tom P.  
Coker, Tom Patrick  
Cole, George R. Jr.  
Cooper, Craig  
Councille, Clifford C. Jr.  
Crittenden, David R.  
Crocker, Thermon R.  
Cross, Michael J.  
Davis, David A.  
Davis, Randall  
de Saint Felix, Douglas  
Decker, Harold  
Denley, Thomas  
Dodson, C. Dwight  
Dollins, Stephen  
Dorman, John W.  
Duke, David D.  
Duncan, Philip E.  
Dykman, Thomas R.  
Eck, Gareth  
Edmondson, Charles T.  
Fincher, G. Glen  
Fish, Ted J.

Fossey, Carol  
 Garbutt, Leopold H.  
 Gardner, Buford M.  
 Garner, Hershel H.  
 Ginger, John D.  
 Gray, Dalton L. II  
 Grear, Danna  
 Grote, Walton  
 Haisten, James  
 Hall, Ben  
 Hall, Joe B.  
 Hargrove, Kevin W.  
 Harris, Murray  
 Harris, Paul L.  
 Harris, W. Duke  
 Harrison, William F.  
 Hart, Hamilton R.  
 Haws, Karl W.  
 Haynes, James  
 Hayward, Malcolm L. Jr.  
 Hedberg, Curtis  
 Heinzelmann, Peter R.  
 Hendrycy, Paul R.  
 Henry, Morris M.  
 Higginbotham, Hugh B.  
 Higginbotham, William  
 Hoffman, Carl E.  
 Holden, Donnie  
 Hui, Anthony  
 Hurlbut, Kevin  
 Hutson, Martha  
 Hutson, Sanford E. III  
 Inlow, Charles W.  
 Knox, D. Luke  
 Koehn, Laura J.  
 Kraichoke, Saran  
 Landrum, Leslie G.  
 Lesh, Ruth E. #  
 Litton, Eva W.  
 Long, Robert M.  
 Magness, C. R.  
 Martin, F. Allan  
 Martin, William C.  
 Mashburn, James D.  
 McAlister, Joseph H.  
 McAlister, Mitchell  
 McAllister, Max F.  
 McBee, Sara  
 McDonald, James E. II  
 McElroy, Kellye  
 McEvoy, Francis  
 McGhee, Linda M.  
 McGowan, William  
 McNair, William R.  
 Miller, Charles H.  
 Mills, William C. III

Moon, Steven L.  
 Moore, Arthur F.  
 Moore, James F.  
 Morse, Michael  
 Mullis, R. Jay  
 Murry, J. Warren  
 Nettleship, Mae B.  
 Nowlin, William B.  
 Ortego, Terry J.  
 Pang, Robert  
 Park, John P.  
 Parker, Joe C.  
 Parker, Lee B. Jr.  
 Patrick, James K.  
 Pesnell, Larkus H.  
 Pickett, James D.  
 Pickhardt, Mark G.  
 Pope, Kevin L.  
 Power, John R.  
 Proffitt, Danny L.  
 Raben, Cyril  
 Raben, Susan  
 Reese, Valerie  
 Riddick, Earl B. Jr.  
 Riner, Dan M.  
 Rogers, David L.  
 Romine, James C.  
 Ross, Joseph  
 Rouse, Joe P.  
 Runnels, Vincent B.  
 Sandefur, Barbara A.  
 Schemel, Lawrence J.  
 Sexton, Giles A.  
 Sexton, Jon A.  
 Shaddox, T. Stephen  
 Sharp, Jim D.  
 Siegel, Lawrence H.  
 Simmons, Thomas  
 Singleton, E. Mitchell  
 Sisco, Charles P.  
 Smith, Austin C.  
 Snyder, Norman I.  
 Spencer, Steven F.  
 Taylor, Robert G.  
 Thomas, Joanna M.  
 Titus, Janet L.  
 Turner, Sam  
 Tuttle, Larry D.  
 Ubben, Kenneth  
 Ureckis, David  
 Ward, H. Wendell  
 Weed, Wendell W.  
 Weiss, John B.  
 Wheat, Ed Jr.  
 Whiteley, Andre  
 Whiting, Tom D.

Whitney, Richard N.  
 Wilson, Robert B. Jr.  
 Wood, Jack A.  
 Wood, Russell Hunter  
 Wood, Stephen T.  
 Woods, Elizabeth Ann

### White County

Asbury, Dale W.  
 Asmar, Salomon  
 Baker, Ronald L.  
 Bell, John  
 Blue, Glen T.  
 Blue, Leon R.  
 Brown, Arnold R.  
 Brown, Terry Mac  
 Burns, Jerry  
 Citty, Jim C.  
 Collier, Steven F.  
 Covey, David C.  
 Davidson, Daniel  
 Edwards, Hugh R. #  
 Elliott, Robert E.  
 Fincher, S. Clark  
 Formby, Thomas A.  
 Gardner, Jack R.  
 Gibbs, William M. III  
 Golleher, James H.  
 Green, Terry G.  
 Hatfield, David L.  
 Henderson, John C.  
 Holston, John S.  
 Jackson, Clarence W.  
 Johnson, David M.  
 Joseph, Eugene A.  
 Justus, Michael G.  
 Killough, Larry R.  
 Kinley, J. Garrett  
 Koch, Clarence W. Jr.  
 Lefler, Stephen F.  
 Lowery, Benjamin R.  
 Lowery, Robert D.  
 Maguire, Frank C. Jr.  
 McAdams, Edward L.  
 McCoy, James R.  
 Meacham, Kenneth R.  
 Millstein, David  
 Moore, Donald  
 Nevins, William H.  
 Norris, E. Lloyd  
 Ransom, Clarence E. Jr.  
 Rasberry, Ronnie D.  
 Rodgers, Porter R. Jr.  
 Schwartz, Stanley S.  
 Shultz, Sam L.

Simpson, James A.  
 Smith, Bernard C.  
 Smith, Bob W.  
 Staggs, David L.  
 Stinnett, J. L.  
 Tate, Sidney W.  
 Thompson, Bruce  
 Weathers, Larry W.  
 White, William D.  
 White, William M.  
 Williams, W. Curtis  
 Yates, Terrence

### Woodruff County

Hendrixson, Basil E.  
 Rowe, James E.

### Yell County

Berry, William L.  
 Bull, L. J.  
 Graves Tippin, Kim  
 Harris, Walter P.  
 Hejna, Thomas  
 Hodges, Jerry F.  
 Luker, Jerome H.  
 Martin, Damon G. H.  
 Maupin, James L.  
 Pennington, James O.  
 Ring, Gene D.  
 Russell, Gary W.  
 Tippin, Philip

### Direct Members

Agent, William S.  
 Agnew, Samuel  
 Ahmed, Sahibzada  
 Akins, Victoria  
 Allison, Janice W.  
 Anderson, Roger Wilbert  
 Angtuaco, Edgardo  
 Ashcraft, Melessa  
 Aukstuolis, Jim G.  
 Aydelott, George  
 Baker, Kevin G.  
 Bard, John L.  
 Bardales, Ricardo  
 Barone, Gary  
 Barre, Hal S.  
 Barrow, Robert  
 Barthold, Julia Spencer  
 Bartlett, Sylvan  
 Bennett, Keith  
 Benson, Stuart  
 Berry, Phillip L.  
 Beyer, H. Stephen



Blickenstaff, Kyle R.	Gilbert, Jimmy	Larey, Mark E.	Rook, Michael J.
Blucker, Linda	Giller, W. John Jr.	Lasher, Alayne C.	Ruiz, Julio P.
Bosch, Charles	Glasier, Charles	LeMay, Thomas B.	Russo, William Louis
Boyd, Anita	Glenn, Robert Edward	Lewellen, Thomas Lynn	Safman, Bruce L.
Brannon, Dabney	Gober, Gregg	Lewis, Charles	Sanders, Robert E.
Brodsky, Michael	Goodman, Jack	Lockhart, William G.	Schexnayder, Stephen M.
Brown, Harry	Gordon, Alfred Y. Jr.	Lyle, Robert	Schuster, Calvin L.
Brown, Raeford Jr.	Graham, Charles J.	Lyles, Fred	Scott, Robert
Brown, Randel	Greenwood, Denise R.	Lynch, Paula	Seib, Paul M.
Bulloch, Robert T.	Grisham, Dannetta	Ma, Frank	Sequin-Calderon, Rosa E.
Bumpers, Paul	Gubin, Steven S.	Marshall, Byrne R.	Shah, Hemendra
Burba, Alonzo R.	Hall, Gregory S.	Marvin, Michael	Sharkey, Paul Jr.
Bushman, Gerald A.	Harden, V. Anthony	Mason, Clinton	Sharma, Bimlendra
Calleton, Richard	Hardin, A. Scott	Mason, Maria Elena	Sharma, Ranbir Kumar
Campbell, Charles E. Jr.	Hardy, Kyle G.	Matchett, W. Jean	Shewmake, Kristopher B.
Campbell, James Jr.	Harik, Sami I.	Mathews, John S.	Short, Bradley Mark
Carle, Scott W.	Harper, Donald	McGrew, Frank III.	Shumate, Linda
Carter, Inge Renate	Harper, Richard	McKenzie, James	Slezak, James
Cesar, Luis Geraldo G.	Harrell, James Jr.	Meador, Ann Sharon	Sloand, Timothy Peter
Chandler, Rodney	Harris, Russell	Meadors, Carol	Smith, Charles
Charles, Steven T.	Harrison, Jack W.	Mercier, David	Smith, Eugene III
Chu, Tommy D.	Harrison, Margaret	Miller, Michael	Smith, Harold K.
Clark, James F. Jr.	Hass, Farrell D.	Moore, Jim J. III	Smith, Kirby L.
Cofer, Thomas	Hathcock, Stephen A.	Moore-Farrell, Laura	Smith, Richard
Collins, Harold B. II	Hayes, John	Moutos, Dean M.	Smith, Samuel D.
Conley, Susan	Herring, Grady Jr.	Nachtigal, Kent P.	Smith, Terry R.
Cook, Joseph A.	Hicks, Charles E.	Neal, Linda A.	Speed, Darrell
Cook, Stephen	Hill, Shirlene B.	Neuwirth, Bryan R.	Spence, Don K.
Cyrus, Scott S.	Hilman, Michael G.	Newan, Michael	Spore, John
David, Wendy S.	Himmelstein, Stevan I.	Newman, James J.	Stagg, Stephen W.
Davidson, Kent W.	Hitt, W. C. Jr.	Nichols, Scott	Stair, J. Michael
Davila, David G.	Holloway, David Jr.	Nolewajka, Andre J.	Starnes, C. Wayne
Davis, Kristie L.	Holt, Terry	Norton, J.B. Jr.	Stephens, Wanda
DeLoach, John Jr.	Hopkins, Robert Jr.	O'Bryan, Robert K.	Stern, Thomas N.
Dinehart, Scott	Hulsey, Matthew	O'Keefe, Dorothy A.	Steward, Rodney Jr.
Diner, Wilma C.	Hurlbut, Kimberly	Oates, Randall B.	Stine, Kim
Dixon, R. Mark	Hutchins, Laura	Pace, Rose A.	Stringer, Warren
Dobbs, John C.	Hutchison, George R.	Parham, Groesbeck P.	Sturner, William Q.
Dodge, Ben	Huynh, Chanh V.	Parker, Ray Jr.	Sweatt, John
Donovan, William	Iskander, Henein	Paslidis, Nick J.	Tait, Layne
Drew, Mary Jo	Istanbouli, Wajih	Pilkington, Cheryl E.	Tanganan, Priscilla L.
Dyleski, Robin A.	Izard, Ralph S. Jr.	Plunk, Hermie G.	Taylor, David H.
Edattukaren, Varghese	Jabbour, J. T.	Pope, David	Taylor, Timothy J.
Edwards, Peter M.	Jackson, Brian D.	Powers, Robert	Teal, Linda
Edwards, Todd D.	Jackson, Richard J.	Price, Claire	Teeter, Mark
Ezell, Gerry D.	Jasin, Hugo	Pullman, Norman	Teo, Charles
Ferguson, Clay	Johnson, Miles M.	Rader, George	Torres, Adalberto Jr.
Finch, Richard R.	Karkos, Jerie	Ramirez, Raul	Turner, Jan L.
Flanagan, Mary Clare	Karlson, Karl Jr.	Rayburn, John	Tutton, James
Flanagan, William H.	Kendrick, Carl M.	Reddy, Krishna	Vermont, Charles
Florendo, Noel	Ko Ko, Aye	Reep, Peggy J.	Wade, Walter Burke
Fontenot, H. Jerrel	Krebel, Meredith	Reese, Ronald R.	Waheed, Atiya N.
Gamble, Cory	Krebel, Steven R.	Robinson, Dan	Webb, Malinda
Gammill, Todd	Krisht, Ali F.	Robinson, Paul F.	Wendel, Paul J.
Ganelli, Ronald R.	Lang, Patricia A.	Roda, Ferdinand T.	Westmoreland, Daniel
Giblin, John M.	Lange, Bernadette	Rodgers, Kenneth	Wheeler, Richard

Whipple, Paul F.  
Whitaker, John  
Whiteside Michel, Julia  
Willis, Charlotte  
Wilson, Steven K.  
Winston, Scott D.  
Wright, Gary David  
Wright, Mark  
Wright, Timothy F.  
Wylie, Paul  
Yawn, Timothy  
Young, Michael C.  
Yuen, James C.

### Residents

Adametz, Kimberly  
Adkisson, Jarrod  
Ahmad, Razee A.  
Albey, Mark  
Alhariri, Mirfat  
Allard, Mark  
Allen, B. Eual  
Andrews, Sean  
Angelocci, Tracy  
Ansari, Mohsin K.  
Antakli, Tamim  
Anthony, John Jr.  
Araneda, Erick  
Arick, Carmen L.  
Atkin, Stuart R.  
Avva, Ramesh  
Bailey, Don M.  
Baldwin, Shelly  
Balis, Luc G.  
Baltz, Katherine  
Barnes, James  
Bates, William  
Bauer, David  
Bayer, Ilene Bertha  
Bearden, Jeffrey  
Beasley, Darryl K.  
Beck, James F.  
Beck, William A.  
Beckel, Ron Jr.  
Beebe, William E.  
Bevans, David III  
Bigham, Lee IV  
Bimle, Cynthia  
Bishop, Kellie  
Bivens, Marilyn  
Blackstock, Terri  
Blakely, Brent Michael  
Bolliger, Karen  
Bonin, Thomas C.  
Bonner, Cynthia  
Boren, Edwin L.

Brady, John G.  
Braun, Sarah  
Brooks, Andrew  
Broussard, Heath  
Bruffett, Wayne  
Buice, Kelly  
Burks, Karen  
Burton, John  
Calicott, Timothy  
Calkins, Joe B. Jr.  
Callahan, Stephen  
Carroll, Barry  
Carter, Charles  
Cash, J. Steven  
Cathcart, Evelyn  
Cheng, Richard Z.  
Chu, Melissa  
Chu, Victor  
Chumley, Willard T. Jr.  
Clary, Cathy  
Clause, David B.  
Claycomb, Scott C.  
Cobb, Mark  
Cochran, Melvin  
Coffman, John  
Cole, Andrew  
Coleman, Charolette  
Coleman, Roy D.  
Colvin, G.B. 'Kip' IV  
Connelley, Jay  
Connelley, Jon R.  
Contrucci, Ann L.  
Cook, Jonathan M.  
Coombe-Moore, Jackie  
Coppola, Angelo Jr.  
Cottone, Joseph  
Cozart, David  
Craig, Jeffrey  
Crocker, Michael A.  
Cunningham, Mary  
Dalton, Cara  
Daniel, George K.  
Daniels, C. Dwayne  
Daniels, Rebecca J.  
David, Alex  
Davis, Scott A.  
Davis, Thomas  
DeFreese, Travis  
DeGraaff, Michael  
Delap, Susan  
Diamond, Kevin  
Dibrell, Fredrick  
Dickerson, Brenda K.  
Dicus, Scott  
Dietz, Tracy  
Diles, Timothy R.

Dillaha, Jennifer  
Dopp, Patrick  
Driskill, Angela  
Duke, John  
Dunaway, Joseph D.  
Dunigan, Rodger  
Ebsen, Tammy  
Ehret, Roger  
Ehret, Rose  
Ekanem, Felix  
Elkins, Louis W. Jr.  
Elnabtity, Mohamed  
Emanuel, Peter  
Embry, Travis D.  
Emery, Robert  
Endsley, Charolette  
Espinoza, Jude  
Evyan, Michele  
Farooque, Mustafa  
Fegan, Jeff  
Ferrer, Thomas J.  
Fiser, Richard  
Fitzgerald, Amy  
Flamik, Darren E.  
Flanigin, Richard  
Fort, David Jr.  
Forte, Judith L.  
Forte, Kevin  
Fortin, Elise  
Foscue, David  
Fox, Robert II  
Franks, Hayden  
Frazier, Ronald K.  
Friesen, Gary M.  
Froman, Elizabeth A.  
Frost, Don  
Gannon, Patrick R.  
Garner, Dewey Duane  
Garner, Hayley  
Garner, Kimberly  
Garrison, Gregory T.  
Gilmore, Barry  
Glasco, Gerry B.  
Good, Tina  
Govindarajan,  
Rangaswamy  
Graham, Richard  
Gray, Janet  
Griffin, David  
Grose, Andrew  
Gurley, Louellen B.  
Habibipour, Saied  
Hadjari, Minoo H.  
Hagaman, Michael S.  
Hah, Wilbur  
Haight, Ann E.

Hale, Jeffrey  
Hall, Scott  
Hardy, H. Dwight III  
Hardy, Ross A.  
Harrigan, Christopher  
Harvey, Jerry L.  
Hassan, Hassan A.  
Hatcher, Alexander H.  
Hatfield, Patrick M.  
Hawkins, Andrew Frost  
Hawkins, Diane Starnes  
Hays, David A.  
Heard, Adele  
Henderson, Vickie L.  
Henry, Paul M.  
Henry, Ronda S.  
Henry, William Jr.  
Hiatt, Roger Jr.  
Highsmith, William A.  
Hill, Chad  
Hill, H. Randy  
Hill, Norman  
Hobbs, Charlotte A.  
Hope, Richard  
Hopkins, John T.  
Horan, Michelle  
Hudec, Wayne  
Hughes, Alan W.  
Hughes, Juan  
Isnard, Donna M.  
Jabben, Merten  
Jacimore, Laura  
Jain, Parker  
Jazieh, Abdul-Rahman  
Jensen, Joseph  
Johnson, Jennifer  
Jones, Steven W.  
Kelly, Kathleen  
Kelly, Patricia  
Kennedy, Richard  
Keplinger, Florian  
Kibodeaux-White,  
Jacquelyn  
Kirchner, JoAnn  
Kiser, Pamela  
Kiser, Thomas  
Klasner, Ann  
Knowles, Glen C.  
Kozlovsky, John  
Kuhn, Ronald  
Kuykendall, Scott  
Lakhanpal, Suresh K  
Lancaster, Shawn  
Lansford, Bryan  
LaPietra, Jesse Jr.  
Laughlin, Catherine L.



Laws, Casey	Milligan, Lynda	Russell, Debra	Van Noy, Timothy
Le, Hong M.	Mitchell, Rhonda K.	Saidi, Johnaqa	VanHoy, Tess B.
Leachman, Michael R.	Mocharla, Raman	Sailors, David	Vartanian, Levon
Lee, Nora H.	Moffett, Shirolyn R.	Salman, Marsha	Veach, Paul A.
Lee, Remington	Moran, Kevin	Sanders, Kelli K.	Velasquez, Lisa Ann
Lee, Tyrone	Mosher, Lisa	Sandor, Zsolt F.	Verbois, Glennal M.
Lewis, William	Mullens, Mark	Sangster, Michael	Verser, Michael
Libuit, Noel	Mullins, Michael	Schalchlin, Curtis	Walker, Barry A.
Lindsey, Christian	Munshi, Medha Nikhil	Schiefer, Mark Anthony	Walter, Matthew T.
Lindstrom, Philip	Murphy, Arlene	Schmitz, James	Ward, Susan
Lintecum, Neal D.	Muwalla, Firas R.	Schonefeld, Michael D.	Waters, Samuel
Lipe, Carol	Neal, Marianne R.	Scott, A. DeMarques	Weaver, Steven G.
Little, J. Aaron	Newman, Alan W.	Scott, Carla R.	Webb, John
Liu, George	Nighorn, Laura H.	Scruggs, Tonya	Wewers, Darin
Lorio, Allison G.	Noonan, Robert	Shaver, Mary	Wharton, James
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### MANUSCRIPT STYLE

Author information should include titles, degrees, and any hospital or university appointments of the author(s). All scientific manuscripts must include an abstract of not more than 100 words. The abstract is a factual summary of the work and precedes the article. Manuscripts should be typewritten, double-spaced, and have generous margins. Subheads are strongly encouraged. The original and one copy should be submitted. Pages should be numbered. Manuscripts are not returned; however, original photographs or drawings will be returned upon request after publication. Manuscripts should be no longer than ten typewritten pages. Exceptions will be made only under most unusual circumstances.

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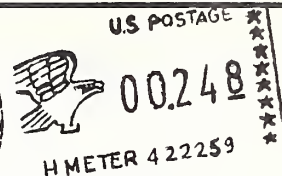
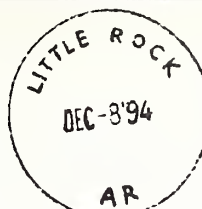
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# MAIL

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*Mail is a new section of The Journal. Send your letters, comments and ideas for publication in the Mail section to: Tina G. Wade, Arkansas Medical Society, P.O. Box 5776, Little Rock, AR 72215-5776.*

## PATIENTS DESERVE MORE

As a periodontist practicing in Little Rock, I have the opportunity to evaluate patients from across the state. A constant source of frustration to me, and I suspect most dentists, comes from patients who have been told by a physician that they have a heart murmur "but don't worry about it." This letter is written in response to a patient telling me of her most recent experience.

*I submit that it is a physician's responsibility to give a patient diagnosed with a murmur some information.*

An echocardiogram was performed and the technician told her there was evidence of a prolapsed mitral valve, but not be concerned. When I asked what the physician had said, I was told he had not seen her nor had he talked with her. This patient had no idea of the need for SBE prophylaxis, despite undergoing appropriate diagnostic testing.

I submit that it is a physician's responsibility to give a patient diagnosed with a murmur some information. Since the American Heart Association has specific recommendations for antibiotic prophylaxis for various surgical procedures, including dentistry, the appropriate patients need to be made aware of this. Similarly, patients with functional or flow murmurs should be told they do not require antibiotics.

An excellent article recently appeared in *Archives of Internal Medicine* (154: 137-144, 1994). It should be required reading of all primary care physicians. This article points out the amazing lack of knowledge of the A.H.A. guidelines by primary care physicians and dentists. It further questions the validity of antibiotic prophylaxis at all. None the less, the current A.H.A. guidelines must be considered standard of care.

Least my comments be written off as just an irritated dentist, remember SBE prophylaxis guidelines also apply to anyone in the medical field involved with sinus, upper respiratory tract, and genitourinary procedures. Patients deserve more than "don't worry about it," as do your medical and dental colleagues.

L. Frederick Church, Jr., DDS  
Little Rock

## EDITORIAL RESPONSE

Dr. David S. Bachman's editorial in the November 1994 *Journal of the Arkansas Medical Society* begs for a response. Dr. Bachman laments the changes taking place in medicine currently and concludes he "hardly" would work to become a doctor in today's climate. Like Dr. Bachman, I am retired from medicine now, but I have been a witness to some of the most amazing changes in medicine which one could imagine. We have developed MRI and CT scanners, cardio-pulmonary bypass techniques, coronary bypass surgery, flexible endoscopes, etc., just to mention a few. Is there a specialty area that has not improved radically since the 1950's? In the past 35 years, we have improved life expectancy and developed many techniques to help our patients to minimize pain and improve chances for healing instead of just holding their hands. Many of Dr. Bachman's complaints seem to center around socio-economic issues and restrictions. Yet, who of us from the 1950's can't remember the charlatans and "cowboys" who got a medical license and then opened a "hospital" which was totally unregulated and out of control? We needed some accountability.

Yet more important than all the above, is the joy a physician feels in helping the suffering and the ill. The grateful look of a happy and healthy patient, the small "thank you, doctor," the Christmas card or just the feeling of a job well done made my career choice the right one. I suppose the bankers and the

*Yet more important than all the above, is the joy a physician feels in helping the suffering and the ill.*

"bond daddies" and the other professions derive satisfaction in their own ways, but I can

enthusiastically recommend a career in medicine for any of our youth willing to work for it. We live in changing times. We have the opportunity to meet new challenges. Who could ask for anything more? Dr. Bachman asks, "Viewing medicine as it is today, were I to do it over again, would I become a doctor?" My answer is "you betcha."

Warren C. Boop, Jr., M.D.  
Little Rock



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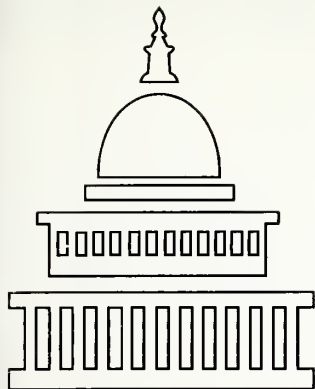
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# Special Message

from

AMS Director of Governmental Affairs

Z. Lynn Zeno

## PATIENT CHOICE vs. INSURANCE COMPANY CONTROL

The control has slowly evolved... precertification; drug formularies; a voice over the phone telling you if you can treat or admit a patient and how long that patient can stay in the hospital; and third party payers who have never seen the patient making medical decisions regarding your patients.

Under the guise of "managed care," insurance companies are finally exerting total control by telling patients where and from whom they can receive their health care.

Through fear and trepidation, physicians have been coerced into choosing sides against one another to protect their patient base.

For the first time in the history of medicine, the question is being asked... ARE DOCTORS ADVOCATES FOR THEIR PATIENTS OR THE INSURANCE COMPANIES?

Even those physicians who are deeply entrenched in managed care...those who have

joined networks under the promise of guaranteed blocks of patients must, deep down in their hearts, believe that selection of a personal physician is, by its very nature, a decision only the patient can make...no employer, insurer, or government entity is qualified to

make that decision on a patient's behalf.

The Arkansas General Assembly is considering legislation that provides the best opportunity for guaranteeing the patient's right to choose their health care provider. The "Patient Protection Act" will prohibit the arbitrary exclusion of providers from health benefit plans.

The term managed care is a real misnomer. It should really be called managed cost, managed access or managed providers.

The AMS House of Delegates was unanimous in their support of the Patient Protection Act. It's time to choose... "Patient Choice vs. Insurance Company Control."

*"Selection of a personal physician is, by its very nature, a decision only the patient can make... no employer, insurer or government entity is qualified to make that decision on a patient's behalf."*

# AMS HOUSE OF DELEGATES UNANIMOUSLY ENDORSES PATIENT'S FREEDOM OF CHOICE

Z. Lynn Zeno, AMS Director of Governmental Affairs

Acting upon a resolution submitted by the Saline County Medical Society, the Arkansas Medical Society House of Delegates unanimously endorsed proposed legislation that would protect the patient's right to choose their own health care provider.

The proposed "Patient Protection Act" to be introduced in the upcoming legislative session will require all entities that offer health benefit plans to allow all qualified providers, who agree to adhere to the terms of the managed care contract, the opportunity to participate.

Following is the full text of the resolution presented to the House of Delegates at the fall meeting held November 19 and 20, 1994, at DeGray Lodge.

WHEREAS of September 1994, nine states have passed Any-Willing-Provider (AWP) or Patient Freedom of Choice (PFC) statutes, and at least six other states are considering such legislation,

WHEREAS a consistent message from consumers is that they want "choice" and "competition" in health care,

WHEREAS the insurance industry enthusiastically worships at the altars of "choice" and "competition" when it decries single-payer health systems yet denies those rights to patients by dictating who should be their doctor and where they should be hospitalized,

WHEREAS locking-out qualified doctors and hospitals does not serve the goal of quality health care,

WHEREAS the best way to guarantee quality in health care is to empower the patient with the widest choice of capable providers and that Any-Willing-Provider or Patient Freedom of Choice legislation gives that control to the consumer.

WHEREAS sole-provider agreements are by nature monopolistic and non-competitive and ultimately raise costs for consumers,

WHEREAS sole-provider agreements invite

abuses by insurers such as charging large access fees for the privilege of provider status,

WHEREAS by legal and ethical imperative, hospitals and physicians are required to provide care for the indigent,

WHEREAS if qualified providers must care for the non-paying patient, justice and fairness would demand access to the paying, insured patient,

WHEREAS Arkansas does not have an AWP or PFC law, which makes Arkansas less competitive with other states when Arkansas seeks to retain its own medical school graduates, or seeks to recruit medical talent from outside Arkansas,

BE IT RESOLVED that the Arkansas Medical Society strongly endorses the Patient Protection Act or Any Willing Provider Legislation:

THAT restores to capable doctors and hospitals the opportunity to participate in any and all health plans if they are willing to accept the provisions of those plans,

THAT requires insurance plans not to discriminate against providers of identical services and

THAT gives patients free choice of participating care-givers without economic penalty.

Unanimously submitted by the Saline County Medical Society, Michael J. Schmidt M.D. representing.

"Draft legislation" has already been prepared and endorsed by the major health care provider organizations in Arkansas. Physician offices have been provided with detailed information that should be shared with their patients and communicated to their legislators.

The issue is "patient choice versus insurance company control" and the third-party payers have already mounted a strong offensive against the proposal. It will take an all out effort by all providers and their patients to overcome the insurance industry's political clout.



The supporting organizations are listed below along with information describing exactly what the bill does and doesn't do.

### **PATIENT PROTECTION ACT OF 1995**

The number one concern regarding health system reform is the patient's fear of losing the ability to choose the health care provider they deem most appropriate for their health care needs. The "Patient Protection Act of 1995" will significantly enhance patient choice through any-willing-provider provisions.

By affording health care providers greater opportunities to participate in health care plans, this Act will:

- give patients greater access to a variety of qualified health care providers.

- foster patient choice by prohibiting health plans from excluding qualified providers who are willing to accept traditional managed care operating criteria. These criteria could include adherence to fee schedules, quality standards and utilization review requirements.

The Act in no way would curtail the ability of health plans to develop operating arrangements necessary to promote efficiency and effectiveness...it would:

- prohibit them from refusing to allow qualified providers the opportunity to participate.

- strike an appropriate balance between the needs of health care plans to establish management criteria and the patient's freedom to choose their health care provider.

### **WHAT THE ACT DOES**

Does enhance the patient's choice of health care provider.

Does protect patients from economic penalties.

Does prohibit insurers from excluding qualified providers who are willing to meet participation rules and requirements.

### **WHAT THE ACT DOESN'T DO**

Does not prohibit the "gatekeeper" concept of managed care.

Does not require an insurer to cover any specific health care service.

Does not interfere with an insurer's ability to utilize traditional managed care concepts including fee schedules, quality standards and utilization review requirements.

Does not affect worker's compensation reform.

### **SUPPORTED BY**

Arkansas Chapter American Physical Therapy Association  
Arkansas Speech-Language-Hearing Association  
Arkansas Occupational Therapy Association  
Arkansas Podiatric Medical Association  
Arkansas Chiropractic Association  
Arkansas State Dental Association  
Arkansas Optometric Association  
Arkansas Counseling Association  
Arkansas Pharmacist Association  
Arkansas Hospital Association  
Arkansas Medical Society



## **MARK YOUR CALENDARS NOW!**

**AMS "Day at the Capitol"  
Wednesday, February 15, 1995  
Little Rock Hilton**



AMS physicians, spouses and clinic managers are invited to a legislative program and reception honoring the members of the Eightieth General Assembly. The program begins at 10:00 a.m. with a legislative briefing. Following lunch, the attendees will go to the State Capitol to visit with their legislators and observe the afternoon proceedings.

The highlight of the program will be the legislative reception at the Little Rock Hilton beginning at 6:30 p.m. It is imperative to have at least one member per legislative district attend the reception. The registration fee will be \$15 per person for lunch, \$25 per person for the evening reception or \$35 for the entire event. The Society encourages everyone to attend all day, but especially advocates attendance at the evening reception.



# LEGISLATIVE OUTLOOK FOR 1995

Z. Lynn Zeno

AMS Director of Governmental Affairs

## NATIONAL

The overthrow of the Democratic Congress in the recent election brings good news and bad news...

The good news is that the perceived Big Brother/Big Government take-over of the health care system is gone. The new more conservative Congress will approach health system change on a smaller scale with the emphasis on incremental insurance reforms and the true possibility of some significant tort reform. The likelihood of increased tax burdens on physicians and all other Americans is remote.

The bad news is that the budget cutting axe will likely fall on expenditures for many entitlement programs. Medicare/Medicaid expenditures will be drastically reduced and there are only two ways to achieve significant savings. The first way is to cut back on benefits or require increased contributions by the beneficiaries. Neither party has shown a propensity to do this, especially if it means incurring the wrath of AARP. The second and more likely way to achieve savings in Medicare/Medicaid is to cut the reimbursement to medical providers. Deep cuts in Medicare spending were prevalent during the Reagan-Bush era, and the Clinton Administration cut Medicare expenditures by \$56 billion in 1993. If you think Medicare reimbursement is low now, hold on to your hat (or pocketbook).

## STATE

The Tucker Administration is not seeing any public outcry for health system reform. The much ballyhooed "Governor's Health Care Task Force Report" will likely be shelved. Governor Tucker still has an interest in combining the state employees insurance program with Medicaid, but state employees will fight that to the wall. There may be some tinkering with

the Medicaid managed care program despite the fact that it appears to be working fairly well. The good news is that the voters' approval of the soda pop tax has insured Medicaid's solvency and reasonable reimbursement levels should be maintained.

The 1995 state legislature will seat 29 new Representatives and 7 new Senators. Term limits will result in a complete shake-up of the House Committee structure and only minor changes in the organization of the Senate. The list of known and anticipated medical related issues for the upcoming session continues to grow.

**THE NEED FOR  
PHYSICIAN  
AND ALLIANCE  
PARTICIPATION IN  
THE LEGISLATIVE  
PROCESS HAS  
NEVER BEEN  
GREATER!**

## A QUICK LINE-UP OF PROBABLE ISSUES INCLUDE:

- A new designation of "Advance Practice Nurse," which would allow independent practice (to include prescriptive authority, hospital/nursing home privileges, direct reimbursement, etc.)
- A challenge by the Nursing Board prohibiting the physician's ability to delegate authority to non-licensed personnel to give injections, dispense medications, etc.
- Proposed licensure bills for acupuncturists, alcohol and drug abuse counselors, respiratory therapists, marriage counselors, and athletic trainers.
- Changes in Workers' Compensation laws.
- Strict regulations for medical record charges.
- Small group health insurance reform.
- Centralized physician and hospital credentialing for HMO's and insurance carriers.
- "Any Willing Provider" legislation to insure the patient's right to choose their health care provider.



# 1995

## Arkansas Medical Society

### "Doctor of the Day"

### Program Calendar



*The Arkansas Medical Society Department of Governmental Affairs appreciates the participation by the many physicians who are volunteering their time to serve as "Doctor of the Day" during the 80th General Assembly.*

*The Society feels that in addition to the service provided to the legislators, the more AMS members we can involve in the legislative process the better.*

*The following pages list a calendar of physicians by day of volunteer service. The Society recognizes and extends a special thanks to "Doctors of the Day" participants.*



# JANUARY 1995

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9 Paul Robinson Little Rock EM/PD	10 Gary Petrus N. Little Rock OTO	11 Steven Teplick Little Rock R  John Williams Blytheville FP	12 E.J. Jones Batesville OBG  Kelly Meyer Russellville FP	13 Carl Chambers Harrison OTO  Sharon Meador N. Little Rock OM	14
15	16 Sidney Hayes Little Rock PUD	17 Brian Sudderth Benton FP  Gene Shelby Hot Springs EM	18 Bart Sills Alma FP  James Crider Harrison FP	19 Dan Davidson Searcy FP  C.D. Williams Little Rock CDS	20 Mayne Parker Little Rock OPH  Richard Hayes Jacksonville FP	21
22	23 Paul Wallick Monticello FP  John Ashley Newport IM	24 Michael Schmidt Benton GS  Joe Stallings Jonesboro FP	25 Dennis Berner Russellville IM  Morriss Henry Fayetteville OPH	26 Thomas Benton Salem FP  Robert McCrary Hot Springs IM/NEP	27 Jim Harrell Little Rock TS	28
29	30 Andrew Monfee Russellville FP  Stanley Applegate Springdale GP	31 Bill Waldrip Batesville FP  Wayne Workman Little Rock GYN				



# FEBRUARY 1995

Sunday      Monday      Tuesday      Wednesday      Thursday      Friday      Saturday

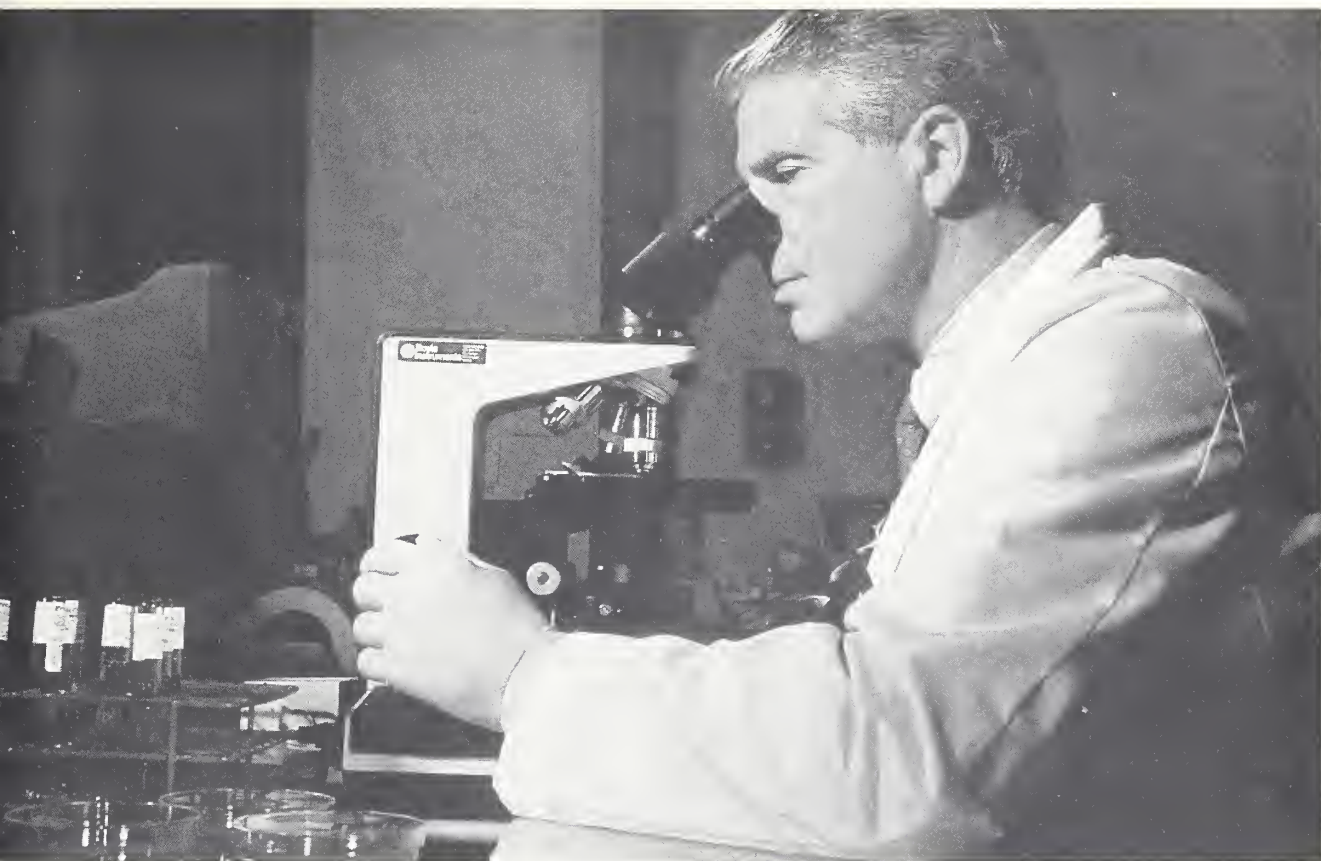
			1 Sam Welch Little Rock OTO  Mack Shotts Paragould FP	2 Herbert Fendley Pine Bluff FP/IM  Edward Bryant West Memphis OPH	3 Nathan Austin Russellville OTO  Don Howard Fordyce FP	4
5	6 John Baker Little Rock GS	7 James Metrailler Little Rock GE	8 Joe Wharton Warren FP  Bruce Burton Malvern FP	9 Adalberto Torres Little Rock PD  Roland Reynolds Newport FP	10 Doug Maglothin Jonesboro FP  John Dodge Texarkana GYN	11
12	13 Robert Floss Hampton FP	14 Bruce Schratz N. Little Rock FP	15 Robert Sanders Fort Smith IM	16 Charles Rice Little Rock OPH	17 Barry Thompson Crossett FP	18
	Jerrel Fontenot Little Rock AN	Roger Bise Fort Smith PS	Bruce Junkin Newport FP	Hamilton Hart Fayetteville FP		
19	20 Steve Thomason Cabot FP	21 David Covey IM Searcy  Carl Raque Little Rock D	22 James Arnold Fayetteville ORS  James Meredith Forrest City FP	23 Timothy Dow Jonesboro FP  Larry Lawson Paragould GS	24 Robert Sykes Nashville FP  Jim English Little Rock FPS/OTO	25
26	27 John Hearnberger CTS	28 Kurtis Vinsant Little Rock GS/VS  Joe Jones Blytheville IM				

# MARCH 1995

Sunday      Monday      Tuesday      Wednesday      Thursday      Friday      Saturday

			1 Lawrence Braden Camden FP	2 Steve Schexnayder Little Rock IM/PD  Lee Atherton Hot Springs OBG	3 Marlon Doucet Little Rock FP	4
5	6 Elicia Sinor Little Rock EM  Dennis Jacks Pine Bluff U	7 Graves Hearnberger Little Rock OTO  David Taylor Searcy GI/IM	8 Gary Bowman Greenbrier FP	9 Laura Hutchins Little Rock ONC  David Kolb Little Rock EM	10 Brewer Rhodes Osceola FP	11
12	13 Hampton Roy Little Rock OPH  David Bourne Little Rock FP/PH	14 Thomas Lewellen Star City FP  Kevin Beavers Russellville IM	15 Eldon Pence Fort Smith IM  Chris Johnson Rogers FP	16 James Wise Marvell EM  Bill Dedman Camden FP	17 Richard Doncer N. Little Rock EM/FP	18
19	20 G. E. Malone Atkins GP	21 John Bard Jacksonville OBG  Roger Cagle Paragould FP	22 James Zini Mountain View FP  Charles Wilkins Russellville IM	23 David King Little Rock FP	24 Gil Foster Little Rock FP	25
26	27 Scott Archer Little Rock EM	28 Lawrence Schemel Springdale FP  Chris Greer Little Rock OPH	29 Les Anderson Lonoke FP	30 Steven Strode Little Rock FP	31 Joe Beck Little Rock IM/ONC	





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# Minutes of the House of Delegates of the Arkansas Medical Society DeGray Lodge, Bismarck November 20, 1994

*Speaker of the House John Crenshaw called the House of Delegates of the Arkansas Medical Society to order at 11:30 a.m., Sunday, November 20, 1994. Members of the House seated were:*

## **OFFICERS:**

President, James M. Kolb, Jr., Pope County  
President-elect, James Armstrong, Little River County  
Chairman of the Council, Charles Logan, Pulaski County  
Immediate Past President, Glen Baker, Little Rock  
Vice President, Scott Dinehart, Pulaski County  
Treasurer, Lloyd Langston, Jefferson County  
Speaker of the House, John Crenshaw Jefferson County  
Vice Speaker of the House, Brenda Powell, Garland County  
President, Medical Student Section, Steve Osmon, Pulaski County

## **COUNCILORS:**

**First District:** Don Vollman (Craighead/Poinsett County) and Dwight Williams (Greene/Clay)  
**Second District:** Lloyd Bess (Independence County) and Mike Moody (Tri-County)  
**Third District:** Hoy Speer (Arkansas County) and P. Vasudevan (Phillips County)  
**Fourth District:** Anna Redman (Jefferson County)  
**Fifth District:** Wayne Elliott (Union County) and Robert Nunnally (Ouachita County)  
**Sixth District:** not represented  
**Seventh District:** Robert McCrary (Garland County)  
**Eighth District:** David Barclay, Joseph Beck, William Jones, Mayne Parker and John Wilson (Pulaski County)  
**Ninth District:** Robert Langston (Boone County)  
**Tenth District:** Gerald Stolz, Paul Wills, and Morton Wilson (Sebastian County)

## **PAST PRESIDENTS:**

John Burge, AMA Delegate, Chicot County  
C. R. Ellis, Hot Spring County  
William Jones, AMA Delegate, Pulaski County  
Ray Jouett, Pulaski County  
Ben Saltzman, Baxter County  
James Weber, AMA Delegate, Pulaski County

## **COUNTY DELEGATES:**

Marolyn Speer, Arkansas  
Robert Baker, Baxter  
Carlton Chambers, Boone  
Noland Hagood, Clark  
Jerry Thomas, Cleburne  
Tim Dow, Joe Stallings, Terence Braden, Craighead/  
Poinsett  
Scott Ferguson, Crittenden  
Don Howard, Dallas  
J. R. Baker, Independence  
John Lytle, Jefferson  
Joseph Robbins, Miller  
Merrill Osborne, Mississippi  
Bill Dedman, Ouachita  
Francis Patton, Phillips  
David Murphy, Don Riley, and Nathan Austin, Pope  
D. B. Allen, Rickey Medlock, Richard Nugent, Carl  
Raque, John Redman, Paul Robinson, Samuel Welch,  
Pulaski  
Michael Schmidt, Marvin Kirk, Saline  
Peter Irwin, Sebastian  
Curtis Patton, St. Francis  
John Hall, Van Buren

## **THE FOLLOWING BUSINESS WAS TRANSACTED:**

- Lynn Zeno, Director of Governmental Affairs, introduced the keynote speaker Senator Bill Gwatney of Jacksonville. Senator Gwatney spoke on issues forthcoming in the 1995 Arkansas General Assembly.
- Janell Mason, Chief Operating Officer of the Arkansas Medical Society Management Company, gave an update on the management company. Janell informed the delegates and other AMS members that eighteen AMCO's have been incorporated to include over 1,700 physician members with 15 hospital contracts and continues expansion. The network also contracts with out-of-state providers to ensure geographically accessible care. Approximately 14,000 lives are covered. She also announced the AMS Management Company has successfully arranged a



partnership with CorVel Corporation, a Fortune 500 Company, providing case management and utilization review for workers' compensation. CorVel and AMCO network have submitted an application to be certified by the Workers' Compensation Commission to serve as a Workers' Compensation Managed Care Organization. The AMS Management Company conducts contract review and has information on over 40 managed care contracts. The AMS Management Company negotiates for physicians in regard to managed care contracting. There will be a meeting of AMCO providers during the AMS annual session in May and a newsletter will be published in 1995 to keep physicians updated.

Dr. Harold Hedges, President of the Arkansas Health Care Access Foundation, discussed their activities. The AHCAF utilizes over 1,600 professional volunteer providers to provide free and reduced cost, nonemergency medical care to those who meet the guidelines. Since the program started in 1989, over 32,000 Arkansas residents have enrolled in the program. There are presently 951 physicians representing primary care and nearly all specialties in medicine. Also participating are three major pharmaceutical manufacturers which donate prescription medications through volunteer pharmacies. Dr. Hedges urged everyone to call the AHCAF office and join the program to help the many Arkansans who have no access to medical care.

Lynn Zeno discussed proposed legislative issues for the 1995 Arkansas General Assembly. Issues to be addressed include the Small Group and Individual Health System Reform Act, medical records, licensing for nonphysicians such as athletic trainers, marriage counselors, and acupuncturists, the Nurse Practitioner Act, and Patient Protection Act of 1995. Senator Vic Snyder, M.D., and State Representative-elect Scott Ferguson, M.D., also spoke briefly to the House. (See Legislative Outlook for 1995 in the January issue of the Journal of the Arkansas Medical Society for details.)

Michael J. Schmidt, M.D., representing the Saline County Medical Society, presented a resolution on the Patient Protection Act of 1995. Upon motion the House voted to endorse the resolution as follows: "...Be It Resolved, that the Arkansas Medical Society strongly endorses the Patient Freedom of Choice Act or Any Willing Provider Legislation that restores to capable doctors or hospitals the opportunity to participate in any and all health plans if they are willing to accept the provisions of those plans. That requires insurance plans not to discriminate against providers of identical services. That gives patients free choice of participating caregivers without economic penalty." Dr. Robert Langston gave a presentation on "What You Can Do on the Local Level". He urged everyone to get involved in their communities and meet their local and state officials.

## YOU

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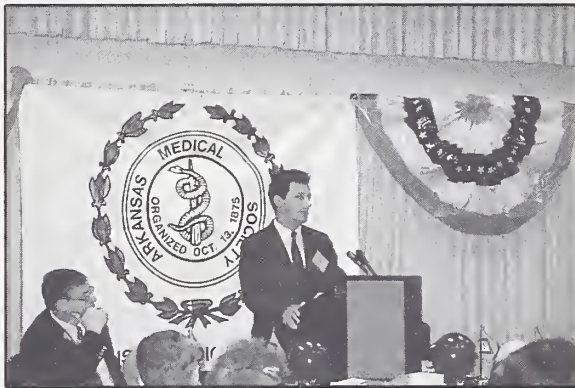
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# Arkansas Medical Society

## 1994 Fall Meeting

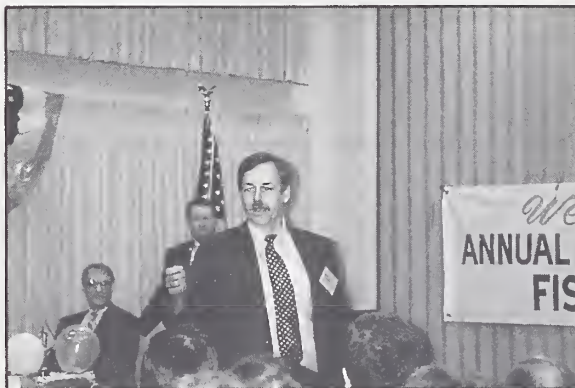
The 1994 fall meeting was held November 19 and 20 at Lake DeGray State Park. Senator Bill Gwatney of Jacksonville was keynote speaker and Representative Scott Ferguson, M.D., of West Memphis, and Senator Vic Snyder, M.D., of Little Rock, were recognized in attendance.



Senator Bill Gwatney, of Jacksonville.



Dr. Robert Langston, of Harrison, speaks to the audience about grassroots participation.



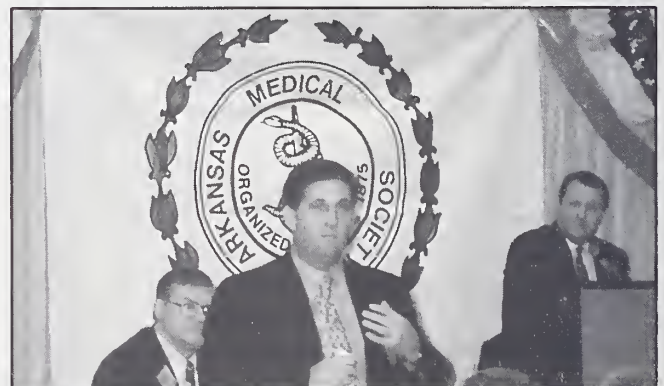
Senator Vic Snyder, M.D., of Little Rock.



Lynn Zeno discusses proposed legislative issues for the 1995 Arkansas General Assembly.



Dr. Michael J. Schmidt, of Benton, presents a resolution to the House of Delegates.



Representative Scott Ferguson, M.D., of West Memphis.





Dr. Harold H. Hedges, president of the Arkansas Health Care Access Foundation.



The hamburger cookout brought in a crowd.



Lynn Zeno is presented with a surprise birthday cake during the cookout.



Nancy Kintzel, of AMA, and Ken LaMastus.



Dr. James Kolb and his wife.

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You support them.  
You fight  
for them.**



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supports and fights  
for you.**

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**Together, we are the profession.**

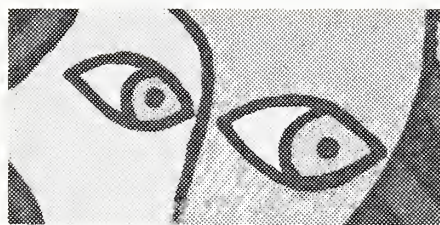




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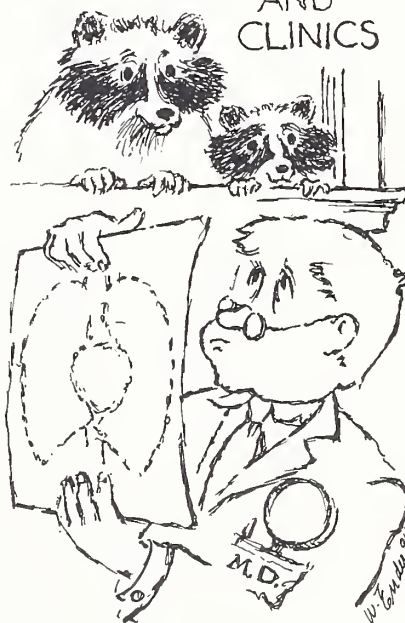
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## *Cardiology Commentary and Update*

Muthu Velusamy, M.D.  
Stephanie L. Lawhorn, M.D.  
J. David Talley, M.D.

### PRIMARY CARDIAC AMYLOIDOSIS

#### INTRODUCTION

Virchow described amyloidosis 1854 based on the color of the fibrils after staining with iodine and sulphuric acid.<sup>1</sup> Isolated cardiac involvement is rare. We report a patient with primary cardiac amyloid and review the clinical manifestations, pathophysiology, and treatment of this unusual infiltrative disorder.

#### PATIENT PRESENTATION

A 32 year old male with no prior medical history presented with chest pain lasting for one day associated with dizziness, nausea, diaphoresis and shortness of breath. The discomfort was not characteristic of angina and there was no relief with nitroglycerin. There was a family history of systemic arterial hypertension, but no known Jewish, Swedish or Portuguese ancestry, or history of alcohol intake. He operated heavy equipment.

He was a mildly obese man, in no acute distress with an irregular pulse rate of 95 beats/minute. The remainder of the physical examination was normal.

Admission laboratory values were normal, however, there was mild cardiomegaly on the chest x-ray and ventricular bigeminy on the electrocardiogram. Serum immunoglobulins were normal. Moderate global left ventricular hypokinesis was seen on echocardiography. At cardiac catheterization, the coronary arteries were normal but there was global hypokinesis of the left ventricle. The estimated ejection fraction was 30%. Endomyocardial biopsy showed degenerated and fibrosed endomyocardium, with

subendocardial, perivascular, and interstitial apple-green birefringent amyloid deposits after staining with Congo red (Figure 1). Pre- and afterload reduction medication was started, his symptoms were improved, and he was discharged without patient follow up.

#### Discussion

##### Definition and Classification

Amyloidosis is the extracellular deposition of the insoluble fibrous protein, amyloid, in one or more sites of the body. Amyloid fibril deposition interferes with normal tissue. Amyloid deposits are seen as an apple-green birefringence with Congo red under polarized light microscopy. The most sensitive method of diagnosis is electron microscopy, where the amyloid deposits are seen as rigid, linear, nonbranching, aggregated fibrils 7.5 to 10 nm wide with variable length.

There are three types of systemic amyloidosis: secondary, familial, and primary. Secondary amyloid material may be seen with chronic inflammatory diseases such as tuberculosis and rheumatoid arthritis. Familial amyloidosis presents with either progressive neuropathy, cardiomyopathy, or renal dysfunction and is genetically transmitted in an autosomal dominant pattern. Primary amyloidosis includes unrecognized inherited forms, secondary amyloidosis without an identified cause, and amyloid deposits confined to a single organ.<sup>2,3</sup> Biochemical classification

Fractionation of amyloid fibrils has allowed chemical identification and categorization of the major protein components. These components include the minor "P" pentagonal component, which is identical in all types of amyloid, and the major fibrillar insoluble component, which varies among the types of

\* Drs. Velusamy, Lawhorn and Talley are with the Division of Cardiology, Department of Internal Medicine, University of Arkansas for Medical Sciences.



amyloidosis. Secondary amyloidosis, and amyloidosis associated with Familial Mediterranean Fever consist of the amyloid A (AA) protein. In primary amyloidosis and in amyloidosis associated with the plasma cell dyscrasias, the amyloid fibril consists of the protein AL. There are three distinctly different forms of senile amyloidosis, SSA1 (isolated atrial involvement), SSA2 (confined to the aorta), and SSA3 (generalized deposition in the lungs, liver, kidneys, and myocardium). In familial amyloidosis the amyloid fibrils consist of transthyretin (prealbumin).<sup>4</sup>

## CARDIAC MANIFESTATIONS

In amyloidosis, the abnormal protein is deposited extracellularly within the interstitium and eventually replaces the myocardial cells. It is also found in the intima and media of the coronary arteries. Usual symptoms are congestive heart failure and arrhythmia. These physiological features reflect diffuse myocardial involvement. Vascular involvement may cause myocardial ischemia. The electrocardiogram may show abnormalities in atrioventricular and intraventricular conduction, old Q wave myocardial infarction, and low voltage QRS complexes. Echocardiography may show symmetric left ventricular hypertrophy, small to normal cavity dimensions, decreased systolic contraction, and the characteristic diffuse hyperrefractile "granular sparkling" appearance of the amyloid deposits.

## TREATMENT

The treatment of amyloidosis is generally unsatisfactory. Symptomatic relief and control of the secondary cause, if present, are the mainstays of treatment. Digitalis concentrations are elevated due to high protein affinity and therefore may result in a fatal arrhythmia. Response to prednisone and melphalan has been disappointing. Colchicine is helpful in Familial Mediterranean Fever. Heart transplantation has good immediate outcome, however, results of a multicenter survey of 10 patients noted reduced late survival. Most of the deaths were due to progressive amyloidosis, including involvement of the allograft.<sup>5</sup> Furthermore, the data suggest that current immunosuppressive protocols do not appear to alter the progression of systemic amyloid deposition.

## PROGNOSIS

The outlook of patients with amyloidosis is dismal. In a Mayo Clinic series of 229 cases, the median survival was 12 months and less than one quarter of patients were alive at three years. The median survival of patients with cardiac failure was only six

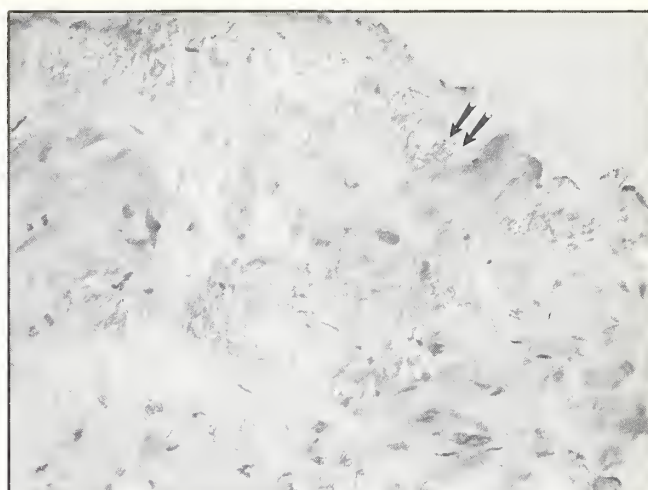


Figure 1. Photomicrograph of endomyocardial biopsy stained with Congo red stain and polarized light showing apple-green birefringent of the amyloid deposits (arrows). Courtesy of James A. Waldron Jr., MD.

months from the onset of symptoms. The extent of interstitial amyloid did not correlate well with survival although patients with vascular deposition had a better prognosis than those who had interstitial involvement.<sup>6</sup>

## CONCLUSION

Primary cardiac amyloidosis is a rare cause of congestive heart failure and myocardial ischemia. Definitive diagnosis requires an endomyocardial biopsy showing apple-green birefringence amyloid deposits. Due to the rapidly progressive nature of the disease, additional procedures such as coronary artery bypass graft surgery should be used sparingly.

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# DO THE "WRITE" THING!

We are always looking for interesting and informative articles for *The Journal of the Arkansas Medical Society*. *The Journal* is a good way to pass an experience you have had or important information you have learned on to your fellow medical professionals. If you would like to consider being an author for *The Journal*, below is a list of topics our readers would be interested in. Or if you have another topic that you think would be of interest to your peers, please submit it for consideration.

- Enhancing the doctor-patient relationship
- Practice management for today's physicians
- Women's health issues
- Teens and drug use
- A smokeless society
- Medical ethics and health care
- What's the value of organized medicine?
- New treatments and technology
- Physicians and managed care
- Physician stress, emotions, health
- Medicare/Medicaid issues
- Medical history of Arkansas
- A doctor's hobby
- Medicine of the future
- Improving the physician's image
- How to market your practice
- New treatments from Arkansas' medical facilities
- Coping with difficult patients

For more details, call or write:

Tina G. Wade

Managing Editor

The Journal of the Arkansas Medical Society

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# Outdoor MO

Information provided by  
the Arkansas Game & Fish Commission

## LUMBER PRODUCER RICK EVANS OF CALION APPOINTED TO COMMISSION

Rick Evans of Calion began a lifelong love for hunting and fishing as a child under the tutelage of older relatives. A few days ago, he was appointed to a 3 1/2-year term on the Arkansas Game and Fish Commission.

Calion is a small town in northern Union County, about 10 miles north of El Dorado near the Ouachita River and Calion Lake.

Evans was selected by Governor Jim Guy Tucker to fill the unexpired term of Hal Hunnicutt of Conway, who resigned from the Commission to spend more time with his family. Evans will serve until June 30, 1998.

"I started hunting and fishing around Calion when I was just a boy. And I like to hunt and fish for everything," Evans said. "My grandfather, some uncles and some cousins were hunters and fishermen, and some of my uncles were commercial fishermen on the Ouachita River."

Evans, 48, was born and raised at Calion. He graduated from Norphlet High School a few miles from Calion and attended vocational school at Pine Bluff. In 1966, he joined Calion Lumber Company a major producer of hardwood lumber in south Arkansas. He rose through the ranks at the company and today is president and general manager.

Calion Lumber Company owns more than 50,000 acres of timber land in south Arkansas, Evans said.

Evans said major problems facing the Game and Fish Commission and Arkansas sportsmen include funding and access to hunting and fishing opportunities. Rising expenses have outstripped the Commission's traditional source of revenue - hunting and fishing licenses. A constitutional amendment to create a 1/8th of 1 percent conservation sales tax with 45 percent of the money going to the Game and Fish Commission was invalidated in a court ruling just before the November 8 general election. Still, the tax was approved by 53 percent of Arkansas voters in counties that tabulated the results, and Commission and legislative officials are looking toward a repeat campaign in 1996.

Evans said, "We are working with a 50-year-old amendment (Amendment 35 which created the Commission in its present form but limits its source of revenue). That amendment is older than I am. I've had to change my life many times and we have to find ways to support our natural resource agencies.

"People need to have places to relax and get away from pressures. Lakes, rivers and forests are important to everyone. We need more public access to these. We're in a growing period, and we're still in the early stages of leasing for hunting. The easy access to hunting and fishing we used to have has changed, and we have to be sensitive to the problems involved. Major companies now own most of our forests, and we have to work with these companies. We have to make it work."

Evans and his wife Karen have two children and two grandchildren. He is active in several conservation organizations and is president of the Southeast Arkansas Chapter of the National Wild Turkey Federation.



## WHAT'S OPEN FOR HUNTERS?

Current and approaching Arkansas hunting seasons:

**DEER:** Archery and Crossbow:

October 1-January 31 in Zone 4,

October 1-February 28 in all other zones.

**TURKEY:** Archery and Crossbow:

October 1-February 28.

**GOOSE:** Snow and blue geese,

November 25-February 14. White-

fronted, November 25-January 31.

Canada, West Zone, January 14-27; East

Zone, January 14-February 5.

**COYOTE:** September 1-March 31.

**CROW:** September 7-February 25,

Wednesdays through Sundays only.

**SQUIRREL:** Fall, September 3-

February 28 in North Zone, October 1-

February 28 in South Zone.

**QUAIL:** December 1-February 12.

**FURBEARERS:** November 19-February

12. Muskrat, nutria, beaver November

19-March 31.

**SNIPE:** November 12-February 26.

## WATERFOWL REPORT BEGINS ON GAME AND FISH "HOT LINE"

Reports on waterfowl conditions around Arkansas, updated twice weekly, have started on the Arkansas Game and Fish Commission information "hot line."

To hear the reports, dial 688-8000 then, when asked, dial 4253. The line is accessible only with touch-tone phones, and the call is long distance outside the Little Rock area.

Several other "hot lines" supply other information about hunting, fishing and other outdoors topics. All are reached through the 688-8000 number. The access codes for each topic are:

4250, big game seasons.

4251, small game seasons.

4252, fishing information.

4254, hunter and boater education.

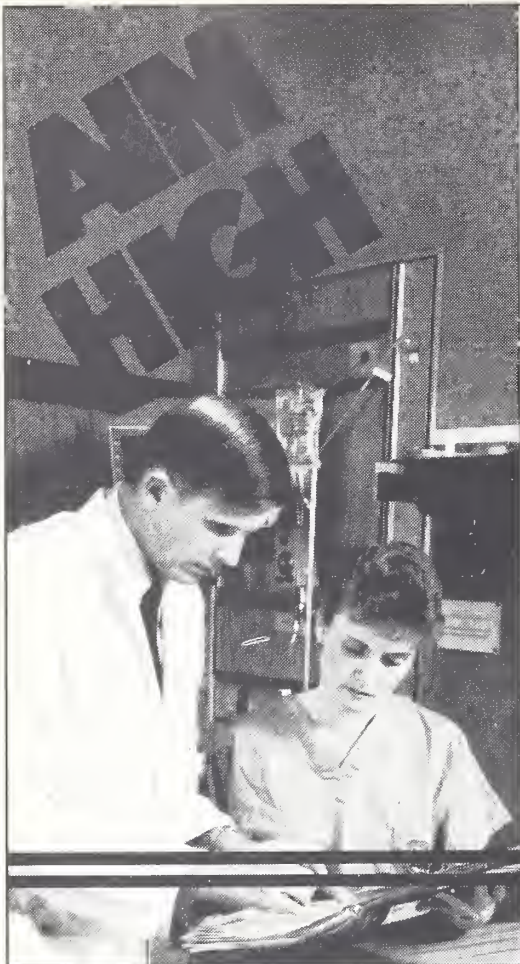
4255, licensing information.

4256, water levels.

4257, shooting range information.

4258, boat registration information.

4259, current events



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# New Regulatory CD4 Reporting To Assist Arkansas AIDS Case Surveillance

---

by Jan Bunch, AIDS Surveillance Coordinator  
Arkansas Department of Health

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In response to the expanded 1993 AIDS case definition which included HIV-infected persons with CD4+ lymphocyte counts less than 200 or with total lymphocytes less than 14 percent, the Arkansas State Board of Health voted July 29, 1994 to approve regulatory CD4 reporting by private laboratories.

Under this new regulation, all CD4 test results must be reported by labs doing business in the state of Arkansas to the Department of Health, just as HIV+ test results are currently reported.

The Board voted to amend the Rules and Regulations Pertaining to Communicable Disease Control to include T-CELL HELPER (CD4+) LYMPHOCYTE COUNT. This amendment added CD4 lymphocyte count to the list of Common Reportable Diseases, Conditions and Findings in order to assist in AIDS case surveillance.

As of September 1, 1994, 21 states had implemented laws, rules, regulations or interpretations of existing AIDS reporting regulations

requiring reporting of CD4+ T-lymphocytes. The level reportable varies among the different states. Sixteen states require reporting of results less than 200 lymphocytes, two states require reporting of less than 500 lymphocytes and in three states (Arkansas, Louisiana and Missouri) all levels of CD4 results are reportable. Eleven of the 21 states also require HIV infection reporting by name and two states have named reporting of HIV infection for pediatric cases only (Connecticut and Texas).

Although Arkansas requires all levels of CD4 results reported, it is noted that physicians may order CD4 tests for reasons other than HIV. However, each CD4 test result reported to the Health Department will be routinely followed up by AIDS surveillance staff. For those persons who are not HIV+, staff will document and close out the report to assure follow-up will not be initiated on that person in the future.

Collection of this type of information is essential in order to continue to track the HIV epidemic and also serves as the basis for funding of HIV services in our state.

Any questions regarding CD4 or HIV/AIDS case reporting may be directed to Jan Bunch at 661-2387.

## States With Required Laboratory Reporting of CD4+ T-Lymphocytes September 1, 1994

States (N=21)	Date Reporting Mandated <sup>1</sup>	Data Collection Initiated	Level Reportable	Identifiers	HIV Reporting by Name
Arkansas	7/94	9/94	all	Name	Yes
Colorado	5/93	5/93	<500	Name	Yes
Connecticut	1/93	1/93	<200	Name	No <sup>6</sup>
Delaware	/90 <sup>2</sup>	12/93	<200	Name	No
Idaho	9/92		<200	Name	Yes
Kansas	7/93	8/93	<200	Name	No
Louisiana	1/93 <sup>2</sup>	1/93	all	Name	Yes
Maryland	/92	1/94	<200	Unique ID	No <sup>7</sup>
Missouri	10/91	10/91	all	Name	Yes
New Jersey	4/92	1/93	<200	Name and unique ID <sup>5</sup>	Yes
New Mexico	3/93	1/93	<200	Name	No
New York	1/94	1/94	<200	Name	No
Oklahoma	8/92 <sup>3</sup>	8/92	<500	Name	Yes
Oregon	4/92	1/93	<200	Name and unique ID <sup>5</sup>	No
Rhode Island	1/93	5/93	<200 <sup>4</sup>	Name	No
South Carolina	1/91	5/91	<200	Name	Yes
South Dakota	1/93 <sup>2</sup>	1/93	<200	Name	Yes
Texas	1/93	4/93	<200	Name	No
Washington	3/93	5/93	<200	Unique ID	No <sup>7</sup>
West Virginia			<200	Name	Yes
Wyoming	1/93 <sup>2</sup>	1/93	<200	Name	Yes

<sup>1</sup> Specific laws, rules, regulations, or interpretations of existing regulations that require laboratory reporting of CD4 test results.

<sup>2</sup> State interpretation of existing regulations, initiated with change in AIDS case definition.

<sup>3</sup> Under temporary authority to report CD4 test results.

<sup>4</sup> Report results <200 by name and >200 CD4 are reported anonymously.

<sup>5</sup> Most reported by name; followed-up with providers done for unique ID/anonymous reports.

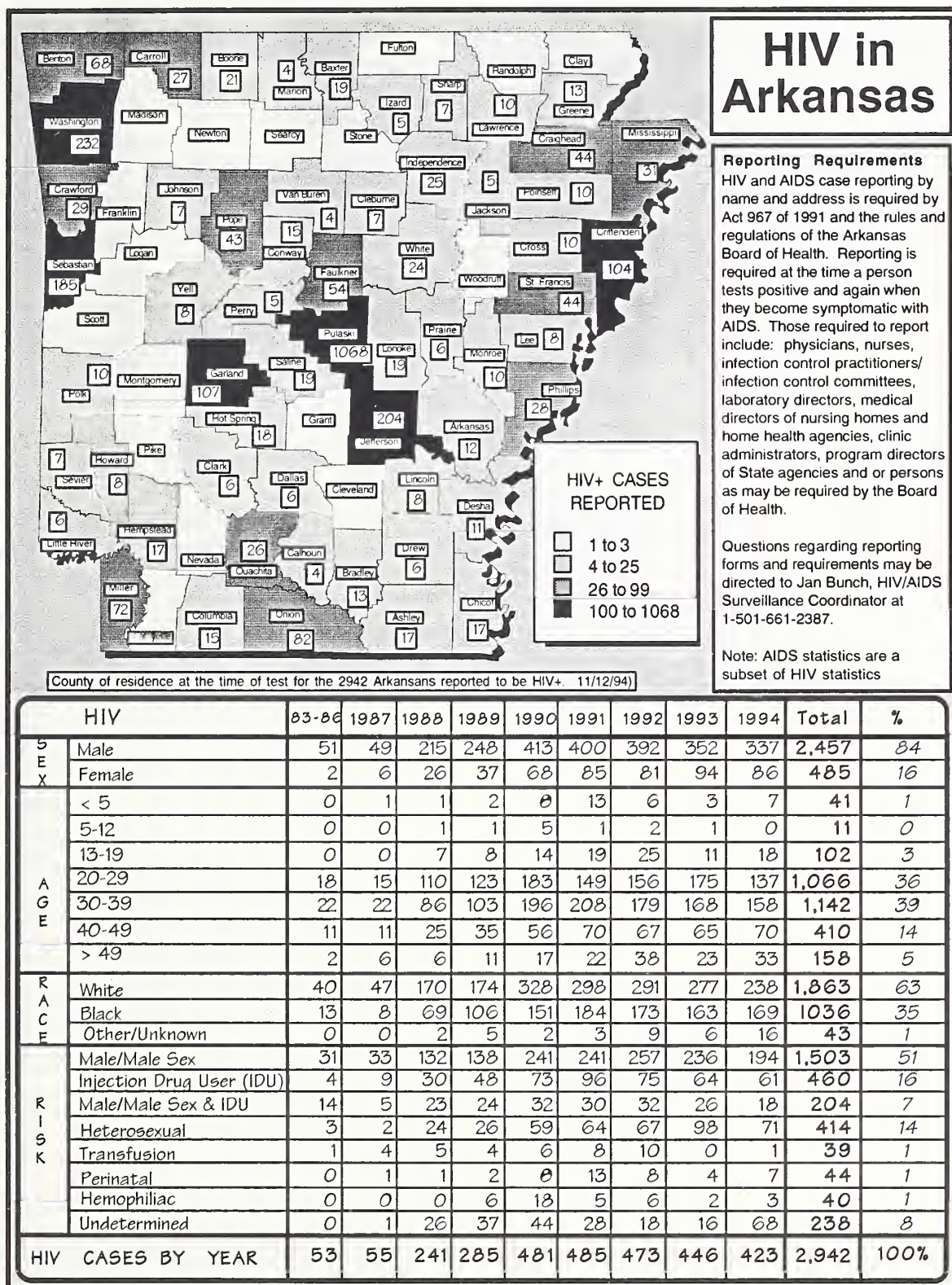
<sup>6</sup> Has pediatric HIV reporting by name.

<sup>7</sup> Require reports of symptomatic HIV infection by name.



# Arkansas HIV/AIDS Report

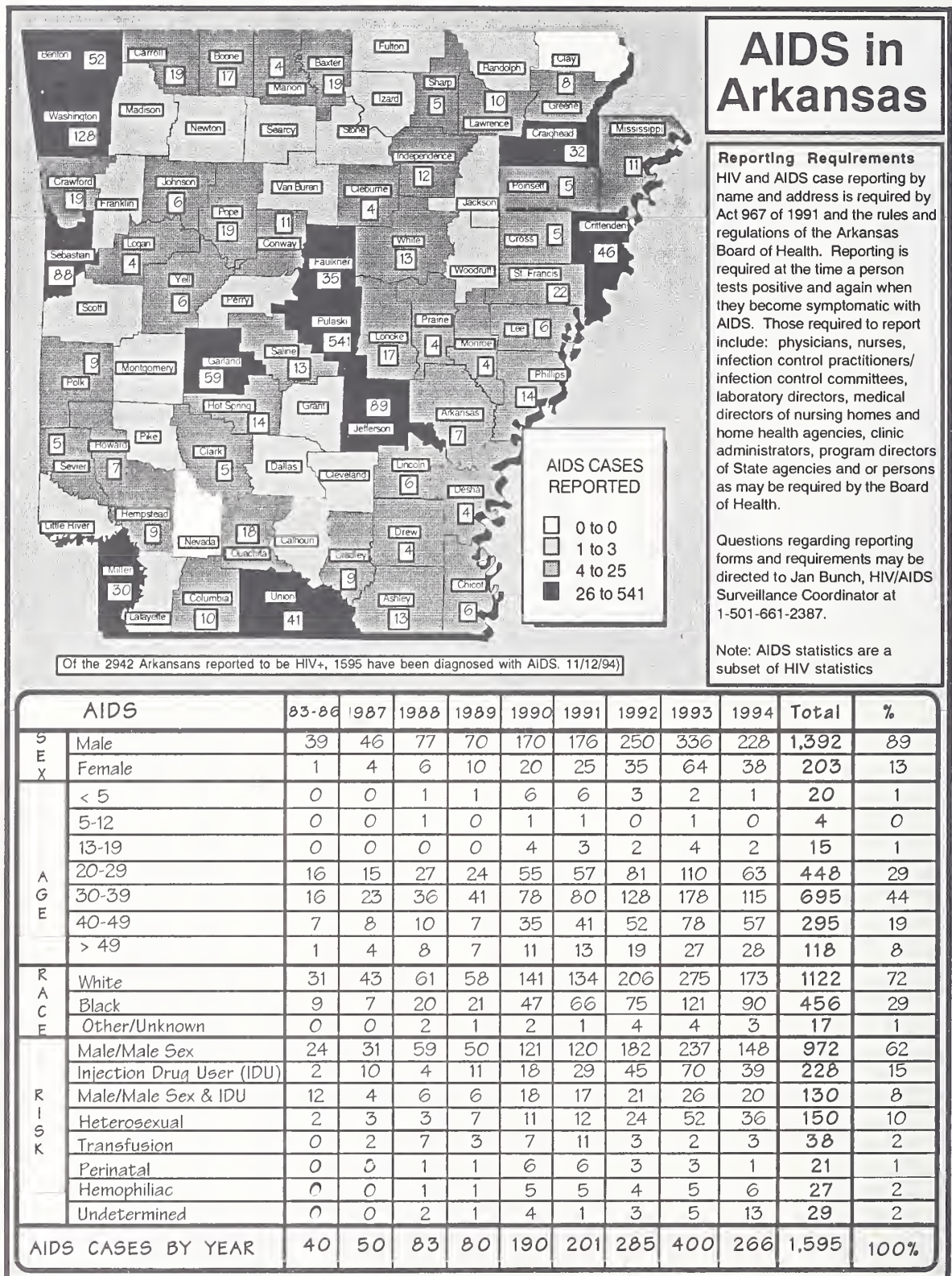
## 1983-1995



Source: AIDS Surveillance Unit, Arkansas Department of Health.



# Arkansas HIV/AIDS Report 1983-1995



Source: AIDS Surveillance Unit, Arkansas Department of Health.



# New Members

---

## BERRYVILLE

**Spann, Eric Glen**, Family Medicine. Medical Education, Louisiana State University Medical Center, Shreveport, 1991. Internship/Residency, LSUMC, 1992; LSUMC, 1994. Board certified.

## BLYTHEVILLE

**Yao, Joseph**, Orthopaedic Surgery. Medical Education, University of Southern California, 1981. Internship/Residency, Huntington Memorial Hospital, Pasadena, Calif., 1982; Creighton University, Omaha, Neb., 1986. Board certified.

## FAYETTEVILLE

**Bays, L. Jerald**, Anesthesiology. Medical Education, University of Oklahoma College of Medicine, Oklahoma City, 1988. Internship/Residency, University of Texas, San Antonio, 1989; University of Texas Southwestern, Dallas, 1993. Board certified.

**Hollomon, Michael G.**, Psychiatry. Medical Education, University of Texas, San Antonio, 1973. Internship/Residency, Duke Medical Center, 1974; University of Texas Southwestern, Dallas, 1994. Board eligible.

**Ivy, Donald Edward**, Anesthesiology. Medical Education, University of Arkansas for Medical Sciences, 1990. Internship/Residency, AHEC-Northwest, Fayetteville, 1991; UAMS, 1994.

**Mahan, Meredith, L.**, Pediatrics. Medical Education, Tulane University School of Medicine, 1986. Internship/Residency, University of Oklahoma, 1987; Alton Ochsner Medical Foundation, 1990.

**Owens, Sherry Lynn**, Pulmonary/Critical Care. Medical Education, University of Oklahoma, 1988. Internship/Residency, University of Texas at San Antonio, 1989; University of Texas, San Antonio, 1991. Fellowship, University of Texas Southwestern at Dallas. Board certified.

## FORT SMITH

**Ihmeidan, Ismail Hamdan**, Radiology. Medical Education, University of Rome, Italy, 1980. Internship/Residency, Amiri Hospital, Kuwait, 1982; University of Miami, 1988. Board certified.

## JONESBORO

**Harvey, Bryan M.**, Pediatrics. Medical Education,

University of Texas Health Science Center, 1991. Internship/Residency, Arkansas Children's Hospital, 1992; Arkansas Children's Hospital, 1994.

## LITTLE ROCK

**Hanna, Ehab Y.**, Otolaryngology. Medical Education, Ain Shams University of Medicine, Cairo, Egypt, 1982. Internship/Residency, Vanderbilt University Medical Center, Nashville, Tenn., 1990; Cleveland Clinic Foundation, Cleveland, Ohio, 1993. Fellowship, University of Pittsburgh, 1994. Board certified.

**Steinemann, Thomas L.**, Ophthalmology. Medical Education, Medical College of Ohio in Toledo, 1985. Internship/Residency, Mercy Hospital, Toledo, 1986; University of Kentucky, Lexington, 1989. Board certified.

## PINE BLUFF

**Mohiuddin, Mohammed J.**, Anesthesiology. Medical Education, J.J.M. Medical College, Davangere, Karnataka, India, 1988. Internship/Residency, Catholic Medical Center, New York, 1991; New York Medical College, 1994.

## RUSSELLVILLE

**Stone, Timothy Ray**, Family Practice. Medical Education, University of Arkansas College of Medicine, 1987. Internship/Residency, UAMS, 1988; AHEC-Pine Bluff, 1991. Board certified.

## RESIDENTS

**Craig, Sherrye D. Lunningham**, Pediatrics. Medical Education, UAMS, 1993. Internship, Arkansas Children's Hospital, 1994; Arkansas Children's Hospital.

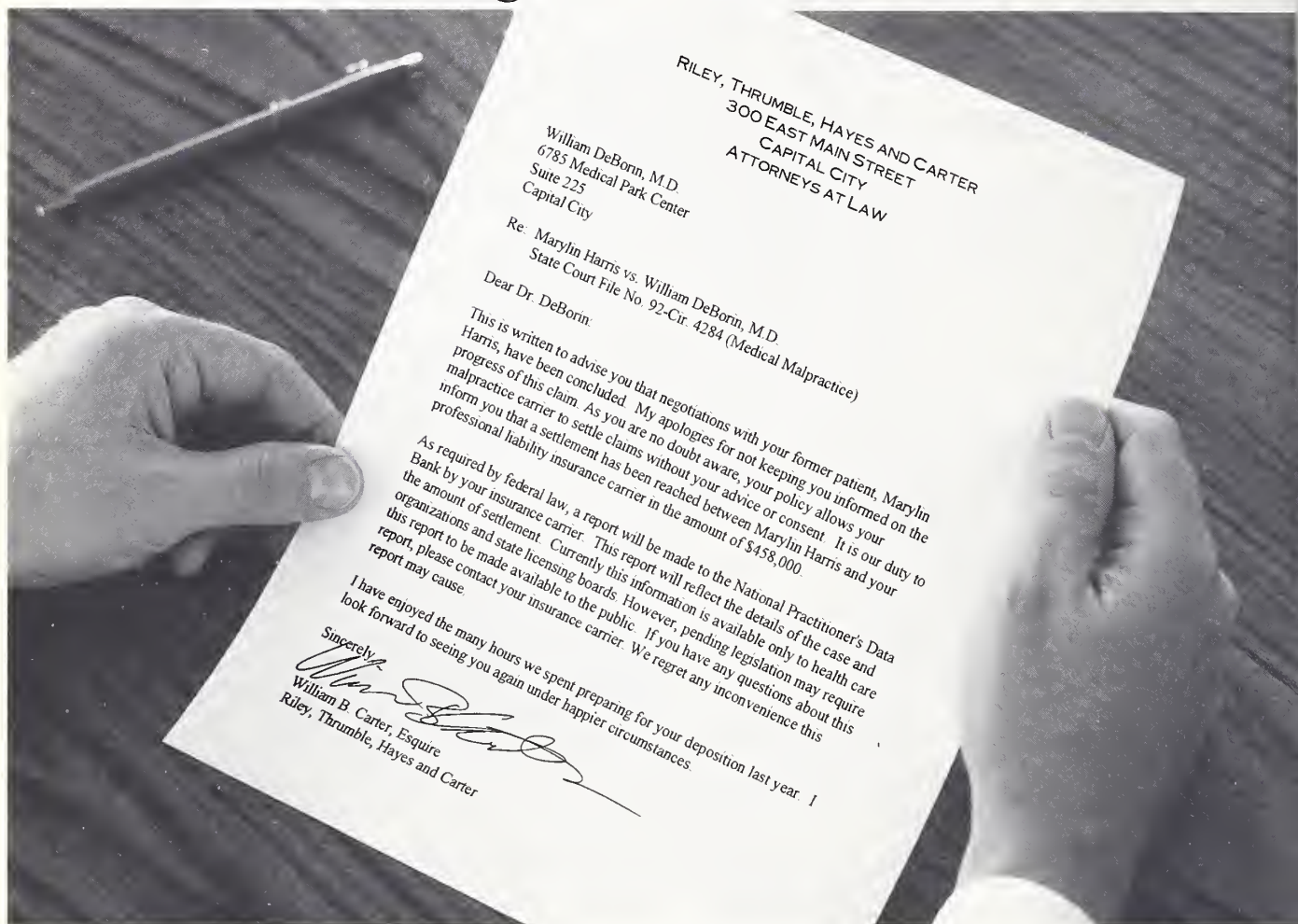
**Diamond, Kevin Michael**, Family Medicine. Medical Education, UAMS, 1994. Internship, AHEC-Northeast, Jonesboro.

**Pope, Louis A.**, Medical Education, University Autonomous of Guadalajara, 1990. Internship/Residency, New York University College of Medicine, 1992; UAMS.

## STUDENTS

Devon Reed Ballard  
Nicholas Paul Luzietti

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**Indications:** Yocon<sup>®</sup> is indicated as a sympatholytic and mydriatic. It may have activity as an aphrodisiac.

**Contraindications:** Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

**Warning:** Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

**Adverse Reactions:** Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.<sup>1,2</sup> Also dizziness, headache, skin flushing reported when used orally.<sup>1,3</sup>

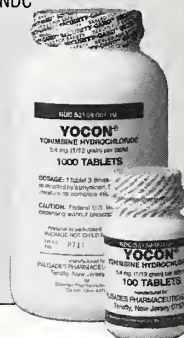
**Dosage and Administration:** Experimental dosage reported in treatment of erectile impotence.<sup>1,3,4</sup> 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.<sup>3</sup>

**How Supplied:** Oral tablets of Yocon<sup>®</sup> 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

#### References:

1. A. Morales et al., New England Journal of Medicine: 1221, November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

Rev. 1/85

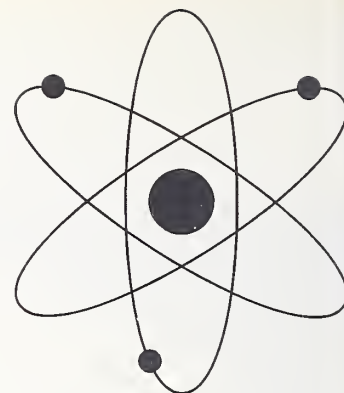


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# Radiological Case of the Month

Norman R. Pledger, M.D.  
David L. Harshfield, M.D.  
Kelly Grigg, B.S.



## History:

This 87-year-old female presented with dysphagia and weight loss. A chest x-ray was performed which prompted a CT scan.

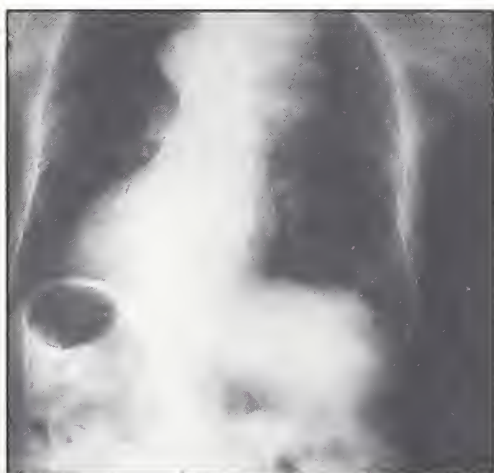


Figure 1: PA chest film which reveals a right paratracheal soft tissue mass. The superior aspect of this soft tissue density extends cephalad beyond the superior margin of the clavicle. Therefore, this could not be confined to the anterior mediastinum.



Figure 2: The accompanying lateral view reveals the soft tissue mass in the superior aspect of the middle mediastinum, superimposed over the aortic arch.



Figure 3: CT scan of the lower neck reveals a soft tissue mass occupying the bed of the left lobe of the thyroid gland. In addition, the complex thyroid mass appears to extend toward the chest through the thoracic inlet.

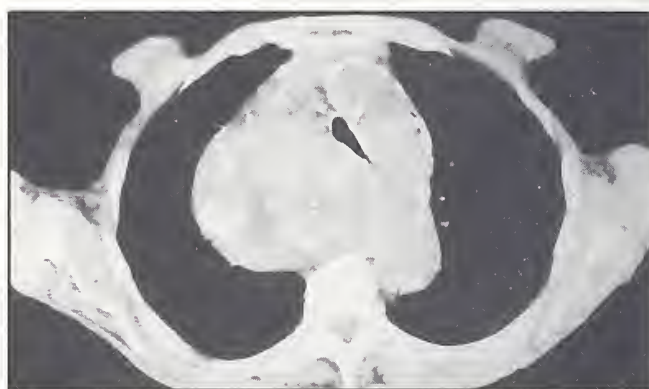


Figure 4: CT scan of the upper chest reveals a well circumscribed, complex mass displacing the trachea and other middle mediastinal structures to the left. In addition, there are coarse calcifications scattered throughout this soft tissue mass in the chest.



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# Mediastinal Goiter

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## Findings:

The plain film of the chest reveals a calcified superior middle mediastinal mass producing mass effect and suggesting connection with the thoracic inlet. The CT scan of the neck reveals the enlarged left lower lobe of the thyroid gland in the patient who had a history of right hemithyroidectomy for goiter several years previously. In addition, there is evidence of soft tissue extending from this goitrous left lower lobe thyroid mass through the thoracic inlet into the middle mediastinum.

## Discussion:

Mediastinal goiters constitute 5-10% of all resected mediastinal masses. These can occur anywhere in the mediastinum, but as in this patient are commonly found in the pretracheal space. This aberrant thyroid tissue is frequently biologically active and will concentrate Radioiodine. However, nuclear imaging has a sensitivity of less than 50% in detecting mediastinal goiters. CT is best for evaluation of mediastinal goiter as well as most mediastinal masses. The density (non-contrasted attenuation values) of thyroid tissue is generally higher (57 to 100 H.U.) than normal soft tissue (30 H.U.). As seen in the measurements obtained from the solid component of this mass. Because of these high CT densities and connection to a thyroid mass, aberrant thyroid tissue should be high on the differential diagnosis. In most cases, as in this patient, mediastinal goiters are extensions of tissue from the cervical thyroid into the pretracheal space. CT scans commonly show focal calcifications as were present in this patient. This patient was not given intravenous contrast which would have resulted in saturating the thyroid tissue with iodine thereby preventing accurate nuclear medicine scanning for several weeks. If contrast is administered, generally mediastinal goiter demonstrates marked, rapid and prolonged enhancement. Most patients with intrathoracic goiter are asymptomatic and the disease process is detected as an incidental finding on routine chest radiographs. However, symptoms such as esophageal compression and weight loss (as was present in this patient) have been documented. The differential diagnosis for middle mediastinal masses should include bronchogenic carcinoma, lymphadenopathy, granulomatous disease, metastasis and teratoma.

## References:

1. Heitzman ER: The Mediastinum: Radiologic Correlations with Anatomy and Pathology. St. Louis, CV Mosby Company, 1977.
2. Benjamin SP, McCormack IJ, Effler DB, Groves LK: Primary tumors of the mediastinum. Chest 62:297, 1972.
3. Kaneko T, Matsumoto M, Fukui K, Hori T, Katayama K: Clinical evaluation of thyroid CT values in various thyroid conditions. Comput Tomogr 3:1, 1979.
4. Glazer CM, Axel L, Moss AA: CT diagnosis of mediastinal thyroid. AJR 138:495, 1982.

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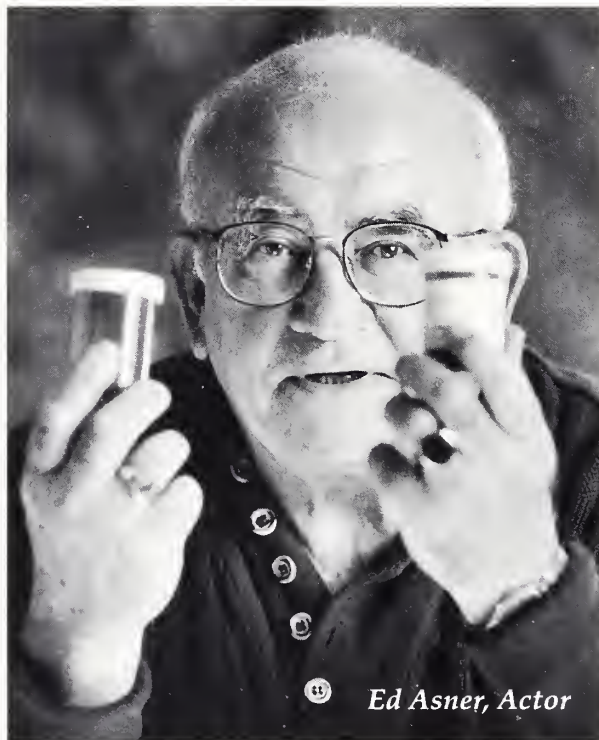
*Editor: Dr. David Harshfield is Director of Radiology at Riverside Radiology Group in North Little Rock and Clinical Associate Professor of Radiology at UAMS.*

*First Author: Norman R. Pledger, M.D. is Director of Family Practice at Prothro Medical Clinic in North Little Rock.*

*Contributor: Kelly Grigg is a premedical student research assistant at the University of Arkansas for Medical Sciences in Little Rock.*



# Attention: Physicians



Ed Asner, Actor

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A public service message from the National Council on Patient Information and Education (NCPIE) and the U.S. Administration on Aging



# AMS Newsmakers

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**Dr. David Barclay**, of Little Rock, has rejoined the staff of University Hospital, where he served as chairman of the department of obstetrics and gynecology from 1970 to 1978.

**Dr. Shannon Card**, of Berryville, recently surpassed the deliverance of 700 babies at Carroll General Hospital.

**Dr. John Elkins**, OB-GYN at Arkadelphia Women's Clinic, was recently notified by the American Board of Obstetricians and Gynecologists that he passed his recertification exam given last August in Dallas.

**Dr. Jim English**, of Little Rock, served on the certification board of the American Board of Facial Plastic and Reconstructive Surgery Inc. at the organization's annual testing and examination program in Washington. This is the fifth year that ABFPRS has selected Dr. English to administer the examination and serve as oral examiner. Dr. English has recently enrolled in The National Domestic Violence Project, which helps victims of domestic abuse.

**Dr. James H. Golleher**, of Searcy, recently received a three-year appointment as Cancer Liaison Physician for the Hospital Cancer Program at Central Arkansas Hospital. The Cancer Liaison Program is an integral part of the Commission on Cancer of the American College of Surgeons.

**Dr. John Randall Russell**, of Lake Village, was recently chosen as distinguished graduate of Jasper High School at the All Class Reunion. He was nominated and selected for the honor by former classmates. His picture, along with other distinguished graduates, will hang on the wall in the new Jasper High School Library, when it is completed next year.

**Dr. John R. Swicegood**, of Fort Smith, was recently awarded with certification of Added Qualifications in Pain Management by the American Board of Anesthesiology.

## Physician's Recognition Award

The Physician's Recognition Award is awarded each month to physicians who have completed acceptable programs of continuing education. The AMS members who were recipients for the month of November are:

John Wilder Baker	Little Rock
Jack L. Blackshear (in October)	Little Rock
E. Lloyd Norris	Beebe
Robert Wendell Ross	Van Buren
William Q. Sturner	Little Rock

# Medicine in the News

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## Health Care Access Foundation Update

As of December 1, 1994, the Arkansas Health Care Access Foundation has provided free medical service to 8,402 medically indigent persons, received 16,019 applications and enrolled 32,486 persons. This program has 1,681 volunteer health care providers including medical doctors, dentists, hospitals, home health agencies and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.



# In Memoriam

---

## **Charles Robert Watson, M.D.**

Dr. Charles Robert Watson, of Little Rock, died Sunday, November 27, 1994. He was 86.

Known as Arkansas' Father of Neurosurgery, Dr. Watson was the state's first neurological surgeon. He practiced in Little Rock from 1942 until his retirement in 1980. Dr. Watson joined AMS in 1943 and was a past president (1972-1973). In addition, he was a member of AMS's Fifty Year Club.

He is survived by his wife, the former Pauline Lindsey Davis; and two daughters, Mrs. Lindsey Watson Huckabay of Little Rock and Mrs. Olivia Watson Neill of Jackson, Mississippi; and three grandchildren, Katharine Lindsey Allen, Robert Watson Neill and John C. Neill, Jr.

## **Janet Gulley Wade**

Janet Gulley Wade, of Hot Springs, died Thursday, December 1, 1994. She was 75.

She was the widow of Dr. H. King Wade.

Mrs. Wade is survived by two sons, Dr. H. King Wade III and his wife, Allie of Denver, Colorado, and Dr. Paul D. Wade and his wife, Kari of Dallas, Texas; one brother, Wilbur P. Gulley Jr., of Little Rock; and four grandchildren, Stewart Wade, Allison Wade, John Henry Wade and Mary Katharine Wade.

## **Margaret B. Kennedy**

Margaret B. Kennedy, of North Little Rock, died Friday, November 18, 1994. She was 69.

Survivors are her husband, Dr. Charles H. Kennedy; son, Charles R. Kennedy of North Little Rock; daughter, Mrs. Cheri Cloud of Russellville; and three grandchildren, Eric Kyle Kennedy, Corey Cloud and Joshua Cloud.

## **Wayne Rockwell, M.D.**

Dr. Wayne Rockwell, of Mission Hills, Kansas, died Sunday, October 2, 1994.

A past AMS member (1974), he was an obstetrician and gynecologist before retiring in 1985.

Survivors include his wife, Vada Gaye Cook Rockwell; two daughters, Valerie Molloy of Overland Park, Kansas, and Gwynne Rockwell of Merriam, Kansas; one brother, Bruce L. Rockwell of Akron, Ohio; and his mother-in-law, Mrs. Daisy Cook Melvin of Fayetteville.

## **Max F. McAllister, M.D.**

Dr. Max F. McAllister, of Harlingen, Texas, died in November 1994. He was 90.

A member of AMS's Fifty Year Club, Dr. McAllister joined AMS in 1947.

## **William B. Harrell, M.D.**

Dr. William B. Harrell, of Texarkana, died Sunday, August 21, 1994. He was 76.

A member of AMS's Fifty Year Club, Dr. Harrell joined AMS in 1943.





# Resolution

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## Mason G. Lawson, M.D.

Whereas, the membership of the Pulaski County Medical Society is saddened to learn of the recent death of a respected member, Mason G. Lawson, M.D.; and

Whereas, his faithful membership in this organization for over fifty years clearly demonstrated the devotion he felt toward his profession and his fellow physicians; and

Whereas, Dr. Lawson's many years of distinguished service as Health Director of the city of Little Rock will be long remembered and appreciated; be it therefore

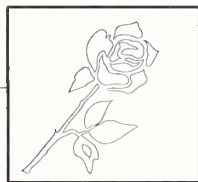
*RESOLVED*, that this resolution be adopted and placed in the permanent archives of this Society; and

*RESOLVED*, that a copy of this resolution be mailed to Dr. Lawson's family as a token of our sincere sorrow; and

*RESOLVED*, that a copy be made available to the *Journal of the Arkansas Medical Society* for publication.

Adopted  
Executive Committee  
November 16, 1994

By Order of the Memorials Committee  
Bruce E. Schratz, M.D., Chairman  
Robert Watson, M.D.  
James Headstream, M.D.



## Marion S. Craig, M.D.

Whereas, the members of the Pulaski County Medical Society note with sincere sorrow the recent death of an esteemed colleague, Marion S. Craig, M.D.; and

Whereas, Dr. Craig was a loyal member of this organization for fifty years, unselfishly giving of his time and energy toward the betterment of organized medicine; and

Whereas, Dr. Craig's devotion to family and history was demonstrated by his numerous publications in the field of genealogy and his zealous service to the Arkansas Genealogical Society; be it therefore

*RESOLVED*, that this resolution be adopted and filed in the permanent files of this Society; and

*RESOLVED*, that a copy be forwarded to Dr. Craig's family as an expression of our heart-felt sympathy; and

*RESOLVED*, that a copy be made available to the *Journal of the Arkansas Medical Society* for publication.

Adopted:  
Executive Committee  
November 16, 1994

By Order of the Memorials Committee  
Bruce E. Schratz, M.D.  
Robert Watson, M.D.  
James Headstream, M.D.

# THANK YOU

FOR MAKING THE DIFFERENCE!



On behalf of the Arkansas Health Care Access Foundation, Inc. We would like to thank the physician volunteers who have continued to generously provide their time and energy to helping those less fortunate in Arkansas.

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These physicians along with pharmacies, dentists, home health agencies, hospitals, Department of Health, and Department of Human Services have joined forces to support the AHCAF, Inc. These volunteers are part of a unique effort to provide access to quality health care for low-income Arkansans who do not qualify for government assistance, have no form of health insurance and are living at or below the federal poverty level.

Through continued support from all sectors of the health care community, you are helping us to meet the growing demand for health care for those in need.



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# Things To Come

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## February 3-4

**Thirteenth Annual UC Davis Infectious Disease Conference.** Hilton Inn, Sacramento, Calif. Sponsored by the Office of Continuing Medical Education and UC Davis School of Medicine and Medical Center. For more information, call (916) 734-5390.

## February 6

**Eighth Executive Program in Managed Care.** Embassy Suites Hotel, Kansas City, Missouri. Sponsored by the Henry W. Bloch School of Business and Public Administration at the University of Missouri-Kansas City, the Health Services Management Program at the University of Missouri-Columbia and the Group Health Association of America, Inc. For more information, call (816) 235-1478 or (816) 235-1489.

## February 9-12

**50th Annual Postgraduate OB/GYN Assembly.** Beverly Hilton Hotel, Beverly Hills, California. Sponsored by the Obstetrical and Gynecological Assembly of Southern California. For more information, call (213) 937-5514.

## February 17-18

**Contemporary Concepts in Self Psychology: Theory & Clinical Practice.** Topeka, Kansas. Sponsored by the Menninger Clinic, Division of Continuing Education. For information, call (800) 288-7377.

## February 24-25

**Incontinence Update 1995.** Hyatt Regency, New Orleans, Louisiana. Sponsored by the Tulane University School of Medicine Department of Urology, Nursing Resource Center and Office of Continuing Medical Education. For more information, call (504) 588-5466 or (800) 588-5300.

## March 4-9

**Twenty-second Annual Critical Care Medicine Course.** Marriott Hotel, Oklahoma City, Oklahoma. Sponsored by the University of Oklahoma. For more information, call (405) 271-5904.

## March 5-10

**Coping with Current Issues in Clinical Practice: 17th Annual Winter Psychiatry Conference.** Park City, Utah. Sponsored by the Karl Menninger School of

Psychiatry & Mental Health Sciences and the Division of Continuing Education. For more information, call (800) 288-7377.

## March 8-9

**Child & Adolescent Rural Injury Control Conference.** Holiday Inn - Madison West, Middleton, Wisconsin. Hosted by the Children's Safety Network and the National Farm Medicine Center. For more information, call (800) 662-6900.

## March 8-10

**Nuclear Oncology.** Thomas B. Turner Building, Johns Hopkins Medical Institutions, Baltimore, Maryland. Sponsored by Johns Hopkins Medical Institutions. For more information, call (410) 955-2959.

## March 24-25

**Otology Update 1995.** Hyatt Regency Hotel, New Orleans, Louisiana. Sponsored by The Department of Otolaryngology and the Tulane University Medical Center, Office of Continuing Education. For more information, call (504) 588-5466.

## March 31-April 2

**Comprehensive HIV Management Update for Primary Care Physicians.** Palace Hotel in New York City. Developed in cooperation with the American Foundation for AIDS Research, and sponsored by the Center for Bio-Medical Communication. For more information, call (201) 385-8080.

## April 19-22

**Fifteenth Annual National Pediatric Infectious Disease Seminar.** Grand Hyatt Hotel, Washington, D.C. Sponsored by The University of Texas Southwestern Medical Center at Dallas, Eli Lilly and Company and the National Pediatric Infectious Diseases Foundation. For more information, call (317) 578-3075.

## April 22

**Clinical Pharmacology for the Practicing Physician: Current Issues in Drug Therapy.** Hotel InterContinental, New Orleans, Louisiana. Sponsored by the Section of Clinical Pharmacology and the Tulane University Medical Center Office of Continuing Education. For more information, call (504) 588-5466.

# Keeping Up

## Off To A Good Start

February 25, 1995, 7:00 a.m., Registration & Breakfast, Park Hilton Inn, Hot Springs National Park. Sponsored by UAMS and presented by Malinda Overton Webb, M.D. Category I credit: 7.5 hours. Fee: \$135.

## 1995 Infectious Diseases Update

March 10, 1995, 12:00 noon & March 11, 1995, 8:00 a.m., Hot Springs. Sponsored by Arkansas Children's Hospital. Category I credit offered: 7.5 hours. Fee: \$135.

## Critical Care & Emergency Medicine Symposium

March 30-April 1, 1995, 7:00 a.m., Registration & Breakfast, The Arlington Resort Hotel and Spa in Hot Springs. Sponsored by UT of Memphis and presented by Milton D. Deneke, M.D. Category I credit: 11.5 hours. Fee: \$200.

## Recurring Education Programs

The following organizations are accredited by the Arkansas Medical Society to sponsor continuing medical education for physicians. The organizations named designate these continuing medical education activities for the credit hours specified in Category I of the Physician's Recognition Award of the American Medical Association.

### FAYETTEVILLE-VA MEDICAL CENTER

General Medical Topics, Thursdays, 12:00 noon, Auditorium, Bldg. 3  
Medical Grand Rounds, Thursdays, 12:00 noon, Conference Room, Bldg. 4

### HOT SPRINGS-AMI NATIONAL PARK MEDICAL CENTER

Continuing Medical Education Luncheon, Jan 13 & 27, 12:30 p.m., AMI Ozark - Quapaw Room

### LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL

Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium  
Genetics Conference, Wednesdays, 12:00 noon, Sturgis Bldg., room 457  
Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom  
Pediatric Grand Rounds, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium  
Pediatric Neuroscience Conference, 1st Thursday, 8:00 a.m., 2nd Floor Classroom  
Pediatric Pharmacology Conference, 5th Wednesday, 12:00 noon, 2nd Classroom  
Pediatric Research Conference, 1st Thursday, 12:00 noon, 2nd Floor Classroom

### LITTLE ROCK-ST. VINCENT INFIRMARY MEDICAL CENTER

Cancer Conferences, Thursdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Chest Conference, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Sandwich buffet served  
General Surgery Grand Rounds, 1st Thursday, 7:00 a.m. Southwestern Bell/ARKLA Room. Light breakfast provided.  
GYN Surgery Cancer Conference, 2nd Monday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Interdisciplinary AIDS Conference, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Joint Tumor Conference, 1st Wednesday, 12:00 noon. CARTI Auditorium. Lunch provided.  
Journal Club, Tuesdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Mental Health Conference, 3rd Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Urology Grand Rounds, 1st Tuesday, 5:30 p.m., Southwestern Bell/Arkla room. Refreshments provided

### LITTLE ROCK-BAPTIST MEDICAL CENTER

Anesthesiology Conference, 3rd Thursday, 7:00 a.m., Conference Room 1  
Breast Conference, 3rd Thursday, 7:00 a.m., Conference Room 1  
GI Conference, 4th Friday, 11:30 a.m., Conference Room 1  
Grand Rounds Conference, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.  
Pathology Conference, 1st Tuesday, 3:00 p.m., Pathology Library  
Pediatric Grand Rounds, Tuesdays, 12:00 noon, Especially for Women Resource Room, 2nd floor/BMC. Category 1 credit available. Lunch provided.  
Pulmonary Conference, Tuesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.  
Sleep Case Conference, Fridays, 12:00 noon. Call BMC ext. 1902 for location. Lunch provided.



**MOUNTAIN HOME-BAXTER COUNTY REGIONAL HOSPITAL**

*Lecture Series*, 3rd Tuesday, 6:30 p.m., Education Building  
*Tumor Conference*, Tuesdays, 12:00 noon, Carti Boardroom

**NORTH LITTLE ROCK-BAPTIST MEMORIAL HOSPITAL**

*Chest & Problems Case Conference*, 3rd Wednesday, 12:00 noon, Assembly room. Lunch provided.  
*Grand Rounds & Chest Conference*, 1st Monday (3rd, chest), 12:00 noon, Assembly room.  
*Medicine Conference*, 1st Wednesday, 12:00 noon, Assembly room. Lunch provided.  
*Surgery Conference*, 2nd Wednesday, 12:00 noon, Assembly room. Lunch provided.  
*X-ray Case Conference*, 4th Wednesday, 12:00 noon, Assembly room. Lunch provided.

As an organization accredited for continuing medical education by the Accreditation Council for Continuing Medical Education, the University of Arkansas for Medical Sciences certifies the following continuing medical education activities meet the criteria for Category I of the Physician's Recognition Award of the American Medical Association.

**LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES**

*ACRC Oncology Forum*, Thursdays, 4:00 p.m., UAMS ACRC 2nd Floor Board room, 1.5 credits  
*Anesthesia Lecture Series*, Wednesdays, 4:00 p.m., UAMS Education Bldg., room G/110 A&B  
*Anesthesia Morbidity & Mortality Conference*, Tuesdays, 6:45 a.m.; 2nd & 4th Thursdays, 4:00 p.m., UAMS Education Bldg., room G/110 A&B  
*Arkansas Blood & Cancer Society Conference*, 6th Thursday, 7:30 p.m. Terrace Restaurant, Little Rock  
*Cardiology Clinical Conference*, Mondays, 4:00 p.m., UAMS, room 3S06  
*Cardiology Graphics Conference*, Wednesdays, 12:00 noon, UAMS, room 3S06  
*CARTI North Tumor Board Cancer Conference*, 2nd Wednesday, 12:00 noon, CARTI North, Searcy  
*Cardiothoracic Surgery Conference*, date, time, & location varies  
*Cardiothoracic Surgery Monthly Journals Club*, 4th Saturday, 9:30 a.m., UAMS Surgery Dept. Library, room 2S/28D  
*Cardiothoracic Surgery Morbidity & Mortality Conference*, 2nd Saturday, 9:30 a.m., UAMS Surgery Dept. Library, room 2S/28D  
*Child Psychiatry Update/Case Conference*, 3 Fridays per month, 1:00 p.m., ACH Child Study Center conference room  
*CME Outreach Program*, dates, times & locations vary  
*Emergency Medicine Didactic Conference 1*, Thursdays, 12:00 noon. UAMS Education Bldg., room G/110A&B  
*Emergency Medicine Didactic Conference 2*, Thursdays, 1:00 p.m., UAMS Education Bldg., room G/110A&B  
*Emergency Medicine Grand Rounds 1*, Tuesdays, 3:00 p.m., UAMS Education Bldg., room B/106A&B  
*Emergency Medicine Grand Rounds 2*, Tuesdays, 4:00 p.m., UAMS Education Bldg., room B/106A&B  
*Endocrinology Case Conference*, Fridays, 7:30 a.m., ACRC 3rd floor conference room  
*Family Practice Grand Rounds*, Tuesdays, 12:15 p.m., Family Practice Center, 6th and Elm  
*Gastroenterology Grand Rounds*, Thursdays, 4:00 p.m., Gastroenterology conference room, 3D29  
*GI/Radiology Conference*, Tuesdays, 8:00 a.m., UAMS Radiology conference room, M1/293  
*Hematology/Oncology Fellow's Forum*, Fridays, 8:15 a.m., ACRC Betsy Blass conference room  
*Interhospital Urology Grand Rounds*, 1st Tuesday, 5:30 p.m., St. Vincent Arkla/Bell room  
*LR Cancer Conference*, Wednesdays, 12:00 noon, UAMS ACRC conference room three times a month, CARTI Auditorium once a month  
*LR Vascular Conference*, time & date varies monthly, rotates between UAMS, SVI & BMC  
*Medicine Grand Rounds*, Thursdays, 12:00 noon, UAMS Education Bldg., room G/131A&B  
*Med/Path Conference*, 3rd or 4th Tuesday, 3:00 p.m., UAMS Shorey Bldg., room S/306  
*Medicine Journal Club*, alternate Thursdays, 7:30 a.m., ACC Medicine Clinic conference room  
*Medicine Research Conference*, Wednesdays (except 3rd), 4:30 p.m. UAMS Education Bldg. room B/135  
*Neurology-Neuropathology Conference*, Wednesday's, 4:00 p.m., Room 2E-142 at VAMC  
*Neurology-Neuradiology Conference*, Wednesday's, 5:15 p.m., Radiology Conference Room at UAMS  
*Neuroscience Clinical Grand Rounds*, Monday's, 3:00 p.m., Betsy Blass Conference Room, Arkansas Cancer Research Center  
*Neuroscience Conference (Basic)*, Mondays, 8:00 a.m., UAMS 7D33  
*Neuroscience Conference (Basic & Clinical)*, Wednesdays, 4:00 p.m., UAMS 7C  
*Neurosurgery Journal Club*, 2nd & 4th Thursdays, 8:00 p.m., 2 credit hours  
*Neurosurgical Pathology Conference*, Thursdays, 4:00 p.m., VAMC-LR Neuropathology conference room, 2E141  
*OB/GYN Fetal Boards*, 2nd Fridays, 8:00 a.m., ACH Sturgis Bldg.  
*OB/GYN Grand Rounds*, Wednesdays, 7:45 a.m., UAMS Education Bldg., room G/131B  
*Ophthalmology Problem Case Conference*, Thursdays, 4:00 p.m., UAMS Jones Eye Institute, 2 credit hours  
*Ophthalmology Residency Morning Lectures*, Mondays, Wednesdays, Fridays, 7:30 a.m., UAMS Jones Eye Institute  
*Orthopaedic Basic Science Conference*, Tuesdays, 8:00 a.m., UAMS Education Bldg., room B/135  
*Orthopaedic Bibliography Conference*, Tuesdays, 8:30 a.m., UAMS Education Bldg., room B/135, 1.5 credit hours  
*Orthopaedic Fracture Conference*, Tuesdays, 7:30 a.m., UAMS Education Bldg., room B/135

*Orthopaedic Grand Rounds*, Tuesdays, 10:00 a.m., UAMS Education Bldg., room B/135  
*Pathology Autopsy Conference*, Wednesdays, 12:00 noon, VAMC-LR Morgue  
*Psychiatry Grand Rounds*, Fridays, 11:00 a.m., UAMS Child Study Center Auditorium  
*Surgery Basic Sciences Conference*, 1st Saturday, 7:30 a.m., ACRC 2nd floor conference room  
*Surgery Grand Rounds*, Saturdays, 8:30 a.m., ACRC 2nd floor conference room  
*Surgery Morbidity & Mortality Conference*, Saturdays, 9:30 a.m., ACRC 2nd floor conference room  
*Surgery Resident Case Conference*, Saturdays (except 1st), 7:30 a.m., ACRC 2nd floor conference room  
*Trauma Morbidity & Mortality Conference*, date & time varies monthly, ACRC 2nd floor conference room  
*Urology Adult Subject Oriented Conference*, once monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Basic Sciences Conference*, 2nd Tuesdays, 5:00 p.m., VAMC-LR, 4D resident office  
*Urology Clinical Didactic Conference*, 3rd Tuesday, 5:00 p.m., VAMC-LR, 4D  
*Urology Formal Teaching (Grand) Rounds*, once or twice monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Journal Club*, once a month, 5:00 p.m., VAMC-LR, 4D  
*Urology Morbidity & Mortality Conference*, once monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Pathology Conference*, 4th Thursday, 5:00 p.m., VAMC-LR, 4D  
*Urology Pediatric Conference*, once monthly, 5:00 p.m., ACH Sturgis Bldg., Clinic 2  
*Urology Pre-op/Didactic Conference*, Mondays, 5:00 p.m., VAMC-LR, 4D  
*Urology Radiology Conference*, 1st Thursday, 5:00 p.m., UAMS, Radiology Department  
*Urology Teaching Conference*, Wednesdays, 5:00 p.m., VAMC-LR, 4D  
*Urology VA Teaching Rounds*, every Friday, 7:30 a.m., VAMC-LR, 4D  
*Uro-radiology Conference (Urologic Imaging)*, 1st Tuesdays, 5:00 p.m., UAMS Radiology conference room  
*VA Chest Conference (combined Surgical/Medical Chest Conference)*, Mondays, 12:15 p.m., VAMC-LR, room 2D109  
*VA Diagnostic Imaging Conference*, Monday-Thursday, 8:00 a.m., VAMC-LR Nuclear Medicine conference room, room 1D173  
*VA GREEC/Geriatric Research Conference*, Tuesdays, 4:00 p.m., VAMC-LR, room 2D109  
*VA Hematology/Oncology Conference*, Thursdays, 8:15 a.m., VAMC-LR Pathology conference room 2E142  
*VA Lung Cancer Conference*, Thursdays, 3:00 p.m., VAMC-LR, room 2E142  
*VA Medical Service Teaching Conference*, Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68 room 130  
*VA Medicine-Pathology Conference*, Tuesday, 2:00 p.m., VAMC-LR, room 2D109  
*VA Medicine Resident's Clinical Case Conference*, Fridays, 12:00 noon, VAMC-LR, room 2D08  
*VA Physical Medicine & Rehab Grand Rounds*, 4th Friday, 11:30 a.m., VAMC-NLR Bldg. 68, room 118 or Baptist Rehab Institute  
*VA Surgery Grand Rounds*, Thursdays, 12:45 p.m., VAMC-LR, room 2D109, 1.25 credit hours  
*VA Topics in Rehabilitation Medicine Conference*, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR Bldg. 68, room 118  
*VA Weekly Cancer Conference*, Monday, 3:00 p.m., VAMC-LR, room 2E-142  
*White County Memorial Hospital Medical Staff Program*, once monthly, dates & times vary, White County Memorial Hospital, Searcy

#### **EL DORADO-AHEC**

*Behavioral Sciences Conference*, 1st & 4th Friday, 12:30 p.m., AHEC - South Arkansas  
*Chest Conference*, 3rd Wednesday, 12:30 p.m., Warner Brown Hospital  
*Dermatology Conference*, 1st Tuesdays and 1st Thursdays, AHEC - South Arkansas  
*GYN Conference*, 2nd Friday, 12:30 p.m., AHEC-South Arkansas  
*Internal Medicine Conference*, 1st, 2nd & 4th Wednesday, 12:30 p.m., AHEC-South Arkansas  
*Noon Lecture Series*, 2nd & 4th Thursday, 12:00 noon, AHEC - South Arkansas. Lunch provided.  
*Pathology Conference*, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas  
*Pediatric Conference*, 3rd Friday, 12:30 p.m., AHEC - South Arkansas  
*Pediatric Case Presentation*, 3rd Tuesday, 3rd Friday, AHEC - South Arkansas  
*Arkansas Children's Hospital Pediatric Grand Rounds*, every Tuesdays, 8:00 a.m., AHEC - South Arkansas (Interactive video)  
*Pathology Conference*, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas  
*Obstetrics-Gynecology Conference*, 4th Thursday, 12:30 p.m., AHEC - South Arkansas  
*Surgical Conference*, 1st, 2nd & 3rd Monday, 12:30 p.m., AHEC - South Arkansas  
*Tumor Clinic*, 4th Tuesday, 12:30 p.m., AHEC - South Arkansas

#### **FAYETTEVILLE-AHEC NORTHWEST**

*AHEC Teaching Conferences*, Tuesdays & Wednesdays, 12:00 noon, Washington Regional Medical Center  
*AHEC Teaching Conferences*, Fridays, 12:00 noon, Washington Regional Medical Center  
*AHEC Teaching Conferences*, Thursdays, 7:30 a.m., Washington Regional Medical Center  
*Medical/Surgical Conference Series*, 4th Tuesday, 12:30, Bates Medical Center, Bentonville  
*Primary Care Conferences*, 1st & 3rd Mondays, 12:00, every Tuesday 7:30 a.m., Washington Regional Medical Center



**FORT SMITH-AHEC**

*Gastroenterology Conference*, 3rd Tuesday every other month, 7:00 a.m., St. Edward Mercy Medical Center  
*Neuroradiology Conference*, 3rd Wednesday, 12:00 noon, St. Edward Mercy Medical Center  
*Neuroradiology Conference*, 1st Tuesday, 11:30 a.m., Sparks Regional Medical Center  
*Sparks Tumor Conference*, Thursdays, 12:00 noon, Sparks Regional Medical Center  
*Tumor Conference*, Mondays, 12:00 noon, St. Edward Mercy Medical Center

**JONESBORO-AHEC NORTHEAST**

*AHEC Lecture Series*, 1st & 3rd Tuesday, 12:00 noon, Stroud Hall, St. Bernard's Regional Medical Center. Lunch provided.  
*Arkansas Methodist Hospital CME Conference*, 7:30 a.m., Hospital Cafeteria, Arkansas Methodist Hospital, Paragould  
*Chest Conference*, 2nd Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Citywide Cardiology Conference*, 3rd Thursday, 7:30 p.m., Jonesboro Holiday Inn  
*Clinical Faculty Conference*, 5th Tuesday, St. Bernard's Regional Medical Center, Dietary Conference Room, lunch provided  
*Craighead/Poinsett Medical Society*, 1st Tuesday, 7:00 p.m. Jonesboro Holiday Inn  
*Independence County Medical Society*, 2nd Tuesday, 7:30 p.m., Batesville Country Club, Batesville  
*Interesting Case Conference*, 4th Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Jackson County Medical Society*, 3rd Thursday, 7:00 p.m., Newport Country Club, Newport  
*Kennett CME Conference*, 3rd Monday, 12:00 noon, Twin Rivers Hospital Cafeteria, Kennett, MO  
*Methodist Hospital of Jonesboro CME Conference*, 2nd Tuesday, 7:00 p.m., Cafeteria, Methodist Hospital of Jonesboro  
*Neuroradiology Conference*, 3rd Friday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Orthopedic Case Conference*, June 23, 7:30 a.m., Board Room, Northeast Arkansas Rehabilitation Hospital.  
*Perinatal Conference*, 2nd Wednesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Pocahontas CME Conference*, 3rd Wednesday, 12:00 noon & 7:30 p.m., Randolph County Medical Center Boardroom  
*Tumor Conference*, Thursdays, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Walnut Ridge CME Conference*, 3rd & last Tuesday, 12:00 noon, Lawrence Memorial Hospital Cafeteria  
*White River CME Conference*, 3rd Thursday, 12:00 noon, White River Medical Center Hospital Boardroom

**PINE BLUFF-AHEC**

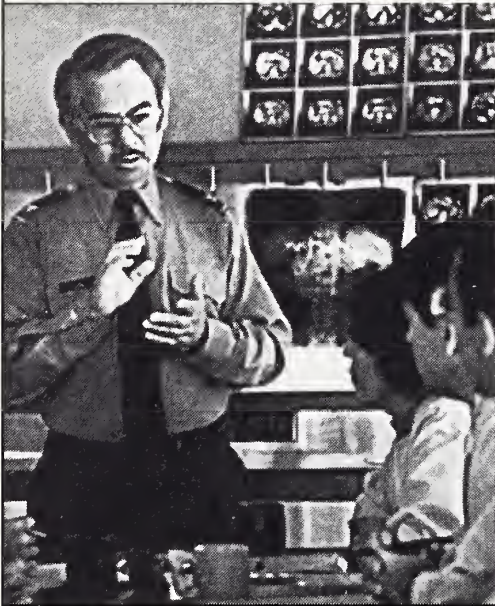
*Behavioral Science Conference*, 1st & 3rd Thursday, 12:00 noon, Jefferson Regional Medical Center  
*Chest Conference*, 2nd & 4th Friday, 12:00 noon, Jefferson Regional Medical Center  
*Family Practice Conference*, 1st & 4th Tuesday, 12:00 noon, Jefferson Regional Medical Center  
*Geriatrics Conference*, 3rd Friday, 12:00 noon, Jefferson Regional Medical Center  
*Internal Medicine Conference*, 2nd & 4th Wednesday, 12:00 noon, Jefferson Regional Medical Center  
*Obstetrics/Gynecology Conference*, 2nd Tuesday, 12:00 noon, Jefferson Regional Medical Center  
*Orthopedic Case Conference*, 2nd & 4th Thursday, 12:00 noon, Jefferson Regional Medical Center.  
*Pediatric Conference*, 3rd Wednesday, 12:00 noon, Jefferson Regional Medical Center  
*Radiology Conference*, 3rd Tuesday, 12:00 noon, Jefferson Regional Medical Center  
*Southeast Arkansas Medical Lecture Series*, 4th Tuesday, 6:30 p.m., Pine Bluff County Club. Dinner meeting.  
*Surgery Conference*, 1st Friday, 12:00 noon, Jefferson Regional Medical Center  
*Tumor Conference*, 1st Wednesday, 12:00 noon, Jefferson Regional Medical Center

**TEXARKANA-AHEC SOUTHWEST**

*Chest Conference*, every other 3rd Wednesday, 12:30 p.m., St. Michael Hospital  
*Neuro-Radiology Conference*, 2nd & 4th Tuesday, 12:00 noon, Wadley Regional Medical Center  
*Residency Noon Conference*, Mondays through Thursdays, 12:00 p.m., AHEC-Southwest Family Practice Clinic  
*Tumor Board*, Fridays, except 5th Friday, 12:00 noon, Wadley Regional Medical Center & St. Michael Hospital  
*Tumor Conference*, every 5th Friday, 12:00 noon alternates between Wadley Regional Medical Center & St. Michael Hospital



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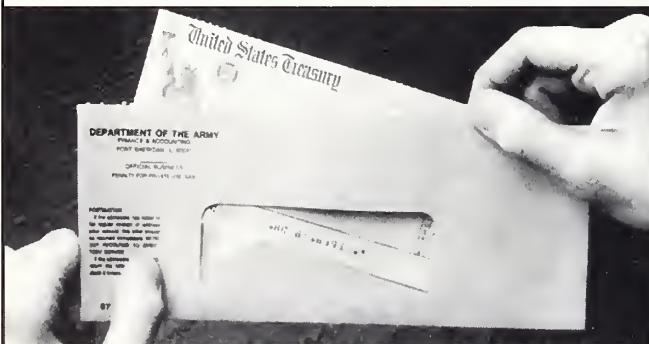
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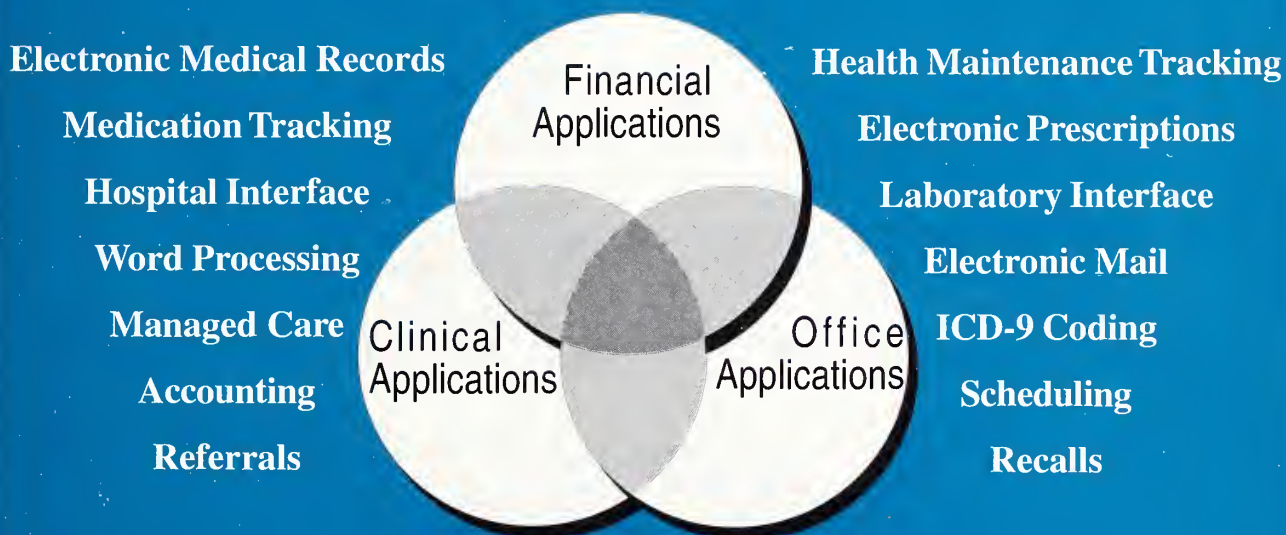
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All manuscripts should be submitted to Tina Wade, Managing Editor, Arkansas Medical Society, P.O. Box 5776, Little Rock, Arkansas 72215. A transmittal letter should accompany the article and should identify one author as the correspondent and include his/her address and telephone number.

### MANUSCRIPT STYLE

Author information should include titles, degrees, and any hospital or university appointments of the author(s). All scientific manuscripts must include an abstract of not more than 100 words. The abstract is a factual summary of the work and precedes the article. Manuscripts should be typewritten, double-spaced, and have generous margins. Subheads are strongly encouraged. The original and one copy should be submitted. Pages should be numbered. Manuscripts are not returned; however, original photographs or drawings will be returned upon request after publication. Manuscripts should be no longer than ten typewritten pages. Exceptions will be made only under most unusual circumstances.

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References should be limited to ten; if more than ten are listed, the author(s) may designate the ten most significant to be printed and readers will be referred to the authors(s) for the complete list. References must contain, in the order given: name of author(s), title of article, name of periodicals with volume, page, month and year. References should be numbered consecutively in the order in which they appear in the text. Authors are responsible for reference accuracy.

### ILLUSTRATIONS

Illustrations should be professionally drawn and/or photographed. Glossy black and white photos are preferred. They should not be mounted and should have the name of the author(s) and figure number penciled lightly on the back. An arrow should indicate the top of the illustration. In photographs in which there is any possibility of personal identification, an acceptable legal release must accompany the material. Up to four illustrations will be accepted at no charge to the author(s). If more than four are necessary, it is understood that the author(s) will be responsible for the reproduction costs.

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tobacco products. I read of one tobacco company executive defending his company's recent involvement in Eastern Europe by saying that American cigarettes were much lower in tar than the local cigarettes. Therefore, he claimed the involvement of the American companies was beneficial for the health of the people of Eastern Europe.

It is discouraging that so many people continue to smoke. The personal tragedies that result from this habit are heartbreaking. The tobacco executives distance themselves from the harsh reality of their product. But even the most expensive cologne can't hide the smell of death that travels with these men. And their talk is all image and illusion, distortion and denial, smoke and mirrors.

#### NOTES

1. Dave Barry's humorous 1994 year-in-review article (printed in the *Arkansas Democrat-Gazette* January 1, 1995) had a great line about this stonewalling tactic: "the cigarette manufacturers...continued to deny that there is any scientific evidence that they, in fact, manufacture cigarettes."

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# Hot Springs Waters and the Treatment of Venereal Diseases: The U.S. Public Health Service Clinic and Camp Garraday

Edwina Walls, MLS, AHIP \*

*The author gratefully acknowledges the assistance of Dr. John Parascandola, Public Health Services Librarian, in the preparation of this article.*

*Hot Springs, Arkansas and healing have been almost synonymous since the Indians lived in the area. From the end of World War I until the early 1940s, venereal disease patients flocked to Hot Springs for treatment. The primary focus of this paper is to tell the story of the facilities built to provide treatment. The government at both the federal, state, and local levels had to accommodate the great demand for treatment. The U.S. Public Health Service Clinic and Camp Garraday at Hot Springs were two major facilities built to meet that demand.*

*Almost forgotten today, these two establishments afforded many patients the opportunity for healing unavailable in local situations. The Clinic provided the best treatment available and performed needed research studies on venereal disease during its peak years.*

## Hot Springs Waters and the Treatment of Venereal Diseases: The U.S. Public Health Service Clinic and Camp Garraday

The practice of bathing in hot or cold springs to cure diseases dates from prehistoric times with the formal development of European spas occurring in the 18th and 19th centuries. Settlers from Europe brought knowledge of hot water therapy with them to colonial America, and settlers also heard about benefits of the hot waters from the Indians.

### Bath House and Medical Care for the Indigent

The U.S. government first gained title to the hot springs in Arkansas on August 24, 1818 when the Quapaw Indians ceded the land to them. Then in 1832, the hot springs and the four surrounding sections of

land were declared a reservation for public use.

In the late 19th century, both the medical profession and the lay public considered the water of the hot springs to have specific therapeutic properties (see figure 1). They were thought to cure venereal diseases. At this time, large doses of mercury were taken along with the baths. What made the Hot Springs treatment distinctive was that physicians prescribed up to 10 times

the normal amount of mercury for bathers with venereal diseases.

One of the most famous of the waters was the old "Ral" hole, which was considered to be a specific for syphilis. The word "ral" was the vernacular for syphilis in that day. The origin of the word is obscure, but in Hot Springs it was considered to be a derivative or a contraction of the word neu-ral-gia which many visitors gave as a reason for coming to Hot Springs. The "Ral" hole was famous far and wide. An early paper by Dr. Oliver Clarence Wenger gives this description.

*...It was nothing more or less than a natural hole or depression in the tufa rock, with a mud bottom. The hole was about 10 feet square and 4 or 5 feet deep, with a temperature ranging from 108-110 degrees, Fahrenheit. Since this temperature was too high for bathing purposes, the water was run through a wooden trough to a hole, approximately the same size, lower down on the hillside,*

\* Edwina Walls is chair of the Historical Research Center at the University of Arkansas for Medical Sciences.



where the water was allowed to cool until it was about 102 degrees, Fahrenheit.

In the early days, there was no protection of any sort around this pool. The procedure was as follows: the patient would disrobe in the surrounding woods, hang his clothes on a hickory limb, and sit on the bank of the upper pool with his feet in the hot water. Later, he would go to the lower pool and gradually work his way into the deeper water so that most of his body was submerged. Often times as many as twenty patients would be in this pool at the same time, packed in like so many sardines. After fifteen to twenty minutes in the water the bather would return to the bank, scoop handfuls of soft, oozy mud from the bottom of the pool and plaster himself from head to foot with this material. He would then lie on the bank for hours, returning to the pool from time to time for a new coating of mud as the old one hardened and dried. Patients with lesions on their head and face would calmly submerge the affected part in these waters and later plaster mud on the affected surfaces....

Morning hours were arranged for ladies, and afternoons were for gentlemen. No fees were charged, and because of the supposedly specific action of these waters, it is told that wealthy patrons would bribe whoever was in charge for the privilege of bathing in these waters, late at night or very early in the morning.

This area was where the poor people bathed. The first man-made structure at this site was built by Charles Leland of Albany, NY in 1875 when he observed the plight of the poor bathing there. He had a neat wooden building constructed over the largest pool for their use.

In 1877, the Hot Springs Commission recommended that a free bathing program for the poor be established by law. The superintendent of the reservation requested funds from the Department of the Interior. Thus, by act of Congress, approved December 16, 1878, Superintendent Benjamin F. Kelley was authorized to arrange and maintain free bathing facilities for indigent patients on the Hot Springs Reservation.

Also in 1878, another popular bathing spot, the Mud Hole pool, was leased to Deputy U.S. Marshall James L. Barnes of Hot Springs. He constructed a bathhouse and bridge to it and improved the pool. He was required to bathe all who applied and a list of all bathers was kept. During the 1880's, demand for free baths continued to increase. A quarterly report ending in November 1885 reported that 19,846 baths were given. Bathers came from 38 states, some territories and foreign countries.

In 1887, Congress allocated funds to construct a new facility at the same site

on Bathhouse Row. The building opened in 1891. The name "Government Free Bath House" was adopted at this time and the name "Mud Hole" abandoned as inappropriate. The free bathhouse continued to have heavy usage, but Park Superintendent William Little thought that many of the people using it could afford to pay. A questionnaire was designed which applicants of the bathhouse had to answer in writing. If the applicant was deemed needy, a ticket for 21 baths was issued. Despite this restriction, the demand for baths grew.

The first attempt to provide any medical care for the indigent bather was in 1898 when a free dispensary was established on the second floor of the free bathhouse. Physician volunteers, led by Major H.O. Perley of the Army and Navy Hospital, examined patients and prescribed for them free of charge. This dispensary was open only two years when reassignments by the hospital left it without a physician.

The demand for use of the free bathhouse and its poor condition caused the Secretary of the Interior to request funding for a new one in 1902. However, funding only to remodel and to add two wings to the original house was received. The remodeled Government Free Bath House opened in January 1904. Pool bathing was abandoned for the first time, a radical departure from earlier procedures. The new bathhouse provided individual porcelain tubs recessed into the floors, commodious cooling and dressing rooms, private lockers, cement floors, steam heat, good lighting, and ventilation. Separate facilities were provided for black and white patrons. The first year 134,589 baths were given. By 1911, the number almost doubled and 220,435 bathed there.

In 1911, a medical director was appointed to supervise the bathhouse in an attempt to improve the quality of care given the indigent bathers. Major Harry M. Hallock, U.S. Army, retired, took the position and



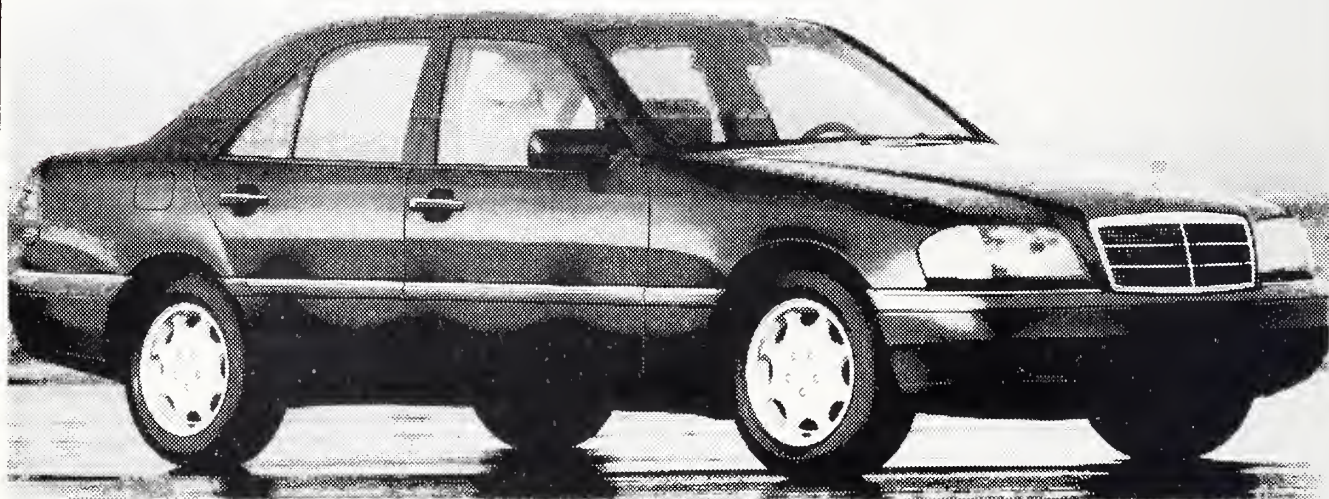
Figure 1: View of one of the Hot Springs in natural condition as it flows from the bank of "TUFA." Photo by Upton.



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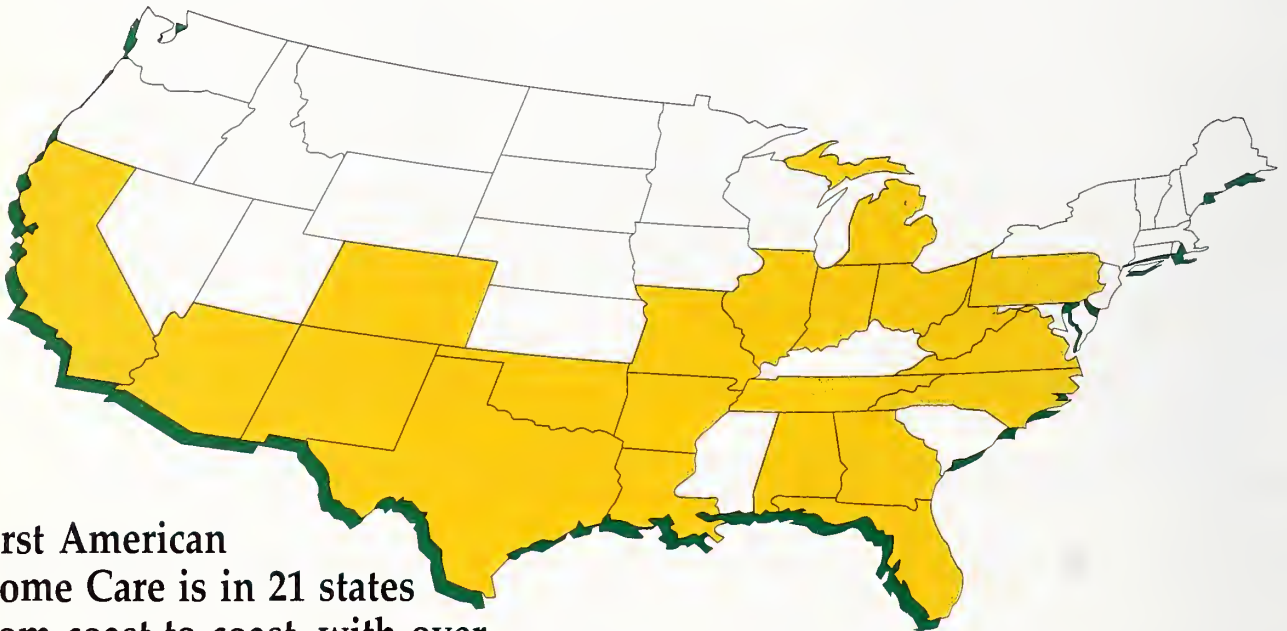
They brought to our company a depth of management and medical expertise unmatched in the industry.

Our company has proactively changed over time. With strength, stability and an uncompromising commitment to quality, we have developed into the nation's largest, privately-owned, Medicare-certified home health care agency.



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Now, stronger and more efficient than ever, we salute our employees. They have made us the industry leader that we are today. Poised for the 21st century, we will continue to provide the finest home health services available... anywhere.





made improvements in the facilities.

Later, in April 1916, a free clinic to serve the poor was established on the second floor of the bathhouse. A group of physicians held the clinic between 1 and 3 p.m. each day except Sundays and holidays. Included among those Hot Springs physicians were Doctors W.H. Deaderick, Maurice F. Lautman, and Loyd Thompson.

***Arkansas' percentage of increase in cases of venereal disease reported between 1920 and 1921 was 86.25 percent -- ranked fifth in the nation in percent of increase.***

A clinic for the treatment of indigent bathers was established. The number of people coming to the Free Government Bath House was continuing to rise. Total applicants between 1921 and 1932 were 46,807.

About this time, the examination of draft records revealed astounding levels of venereal disease among World War I inductees. Arkansas' percentage of increase in cases of venereal disease reported between 1920 and 1921 was 86.25 percent — ranked fifth in the nation in percent of increase.

### **The USPHS Venereal Disease Clinic at Hot Springs**

In 1918, the Division of Venereal Disease of the U.S. Public Health Service was created by the Chamberlain-Kahn Act. Among its charges were cooperation with the state departments of health to prevent venereal disease within the states and cooperation among states to control and prevent interstate transmission of the diseases.

In 1918-1919, there were four venereal disease clinics in Arkansas: Hot Springs, Little Rock, Pine Bluff and Texarkana. By 1922, the number of clinics operating under the joint control of the PHS and the Arkansas State Board of Health had grown to ten with two in Hot Springs. These two clinics were the V.D. clinic at the Free Government Bath House, which had been organized in 1916 by the Superintendent of the U.S. Reservation and a group of local physicians, and the clinic for venereal disease at the Leo N. Levi Memorial Hospital which was organized in 1918. These clinics were entirely inadequate to handle the large influx of indigent and semi-indigent patients who came to Hot Springs seeking free healing. In 1918, planning began for a new free bathhouse and a new clinic and updated laboratories were anticipated. Stephen T. Mather, Director of the National Parks Service Surgeon General Hugh S. Cummings, of the U.S. Public Health Service, and Dr. C.W. Garrison, Arkansas' state health officer, approved a plan advocated by Dr. O.C. Wenger to establish a combination

bathhouse and clinic which was to be a model clinic for treatment of venereal disease. The ground-breaking for the facility was January 31, 1920 and Assistant Secretary of the Interior, Golden G. Hopkins, broke ground on Block 82 of the city of Hot Springs which had been donated to the government for the bathhouse and clinic.

The facility was in a desirable location between Spring and Reserve streets. It was opposite the Army & Navy Hospital just three blocks from the heart of the city. Long before this time there had been agitation to remove the government bathhouse from Bath House Row. Ironically, the designated site on Reserve Avenue was not far from the location of "Kelleytown" from which inhabitants of "Ral City" had been removed over forty years earlier.

The building constructed in 1921 was a two-story structure of interlocking tile and reinforced concrete in a Roman Revival style. The exterior walls were stuccoed and the roof was of red mission tile. The upper floor, with its main entrance on Reserve street, housed the bathing facilities. The building was divided into four separate units, one each for white men, white women, black men, and black women. The numbers of tubs and pools varied according to need. For white men, there were six tubs and six pools; for white women, two tubs and one pool; for black men, six tubs and four pools; and for black women, two tubs and two pools. Each unit was equipped with vapor and shower baths and dressing and cooling rooms.

The lower floor of the building was the Public Health Service Clinic and dispensary. The lobby entrance was from Spring street and incoming patients were received there (see figure 2). The cost for the structure was about \$300,000. The

### **Dr. Oliver Clarence Wenger stated the aims of the USPHS Venereal Disease Clinic as follows:**

- to reduce the prevalence of venereal diseases by adequate and modern treatment,
- to assist in the training of physicians, nurses, and social workers,
- to assist in educational programs for venereal disease, and
- to encourage and support legal measures.

clinic opening was in November of 1921. The bathhouse opened a few months later in March 1922, and the old government free bathhouse was demolished during the latter part of that year.

When it opened in 1921, the Clinic had a staff of eleven (see figure 3). Some were employees of the PHS and some were employees of the Interior Department. Three physicians, a bacteriologist, a lab technician, an RN social worker, two secretary clerks, a bathhouse attendant, and two porters staffed the facility. In 1922, 54,804 baths were provided to indigent persons at the bathhouse and 2,720 made applications to the clinic.

Dr. Oliver Clarence Wenger was the dedicated, well-trained Public Health Service official and organizational genius who made the USPHS clinic the pioneer clinic that it was. In a 1922 article in *Medical Times* the clinic was called a model federal venereal disease clinic. However, the clinic could not have achieved its aims without the assistance of local Hot Springs physicians and hospitals. From its early days, the clinic was assisted by an active and consulting staff of local physicians. In 1929, the active staff of five assisted in routine examination and treatment. The consulting staff of 24 local physicians provided consultations when needed. No pay was received for these services and the physicians were accepted by the Surgeon General on recommendation of the clinic advisory board.

The Leo N. Levi Hospital assisted the clinic from its beginning. The white indigent patients who had non-venereal diseases were referred to them for treatment at no charge. Dr. Wenger stated in a report in

1929, "The staffs of the two institutions are interlocking...In fact, the relation and exchange of services is so happily coordinated, that the Clinic could hardly operate without this cooperation of the Leo N. Levi Hospital." The Woodmen of the Union

Hospital provided hospital care for black patients and was also an integral part of the clinic's operation.

Dr. Wenger described the patient procedures in 1929.

Each applicant for free baths and treatment was required to execute an indigent's oath before the manager of the Free Bath House. After completion of the oath, the applicant went to the clinic where preliminary examinations and laboratory tests were performed. If the patient was suffering from a venereal disease, he was treated at the clinic. If the patient was free from venereal disease, he was transferred to the Steinberg Clinic of the Leo N. Levi Hospital where his disease was classified and treatment delivered.

No person was permitted to bathe at the Government Free Bath House unless he had been examined in the clinic.

All venereal disease patients requiring special examinations were sent to the Steinberg Clinic. This included such things as x-rays, spinal punctures, cystoscopic examinations, etc.

Patients were required to remain six weeks as a minimum or until they were considered non-infectious. When discharged from the clinic, the patient was provided an inter-state transfer permit, was given a resume outlining the treatment received at the clinic, and was told to report to his local health office or private physician.

One of the major problems of treatment was getting patients to stay for a complete course of treatment.

Therapy for venereal disease had changed greatly since the time mercury was given orally or applied to the skin. Arsenical organic compounds were used at



Figure 2: Spring Street entrance to USPHS Venereal Disease Clinic, 1921 Building (Wenger Papers, UAMS Library, Historical Research Center).



Figure 3: Venereal Disease Clinic personnel, ca 1923. Dr. O.C. Wenger is on the front row, fifth from left in uniform. Hot Springs consulting physicians are also shown. (Wenger Papers, UAMS Library, Historical Research Center).



the PHS Clinic in the 1920's, sulfa drugs in the 1930's, and penicillin in the late 1940's.

The arsenical compound, Arsphenamine, and related drugs were administered at the clinic from the early 1920's to the 1940's. An efficient method for administering this treatment was developed by Dr. Wenger. Preparatory to receiving the treatment, sleeves were rolled, and the arm bared. The patient straddled a bench and placed his arm on the table. A nurse applied a tourniquet and washed the arm with alcohol. An assistant followed, inserted the needle and adjusted the indicator on a gravity tube. A second nurse removed the needles and sterilized. This new method required a staff of four who could administer 98 doses of Arsphenamine in 40 minutes (see figure 4). The old method required 12 staff members who handled only 20 patients per hour. In 1925, 12,713 arsphenamine and other intravenous treatments of a total of 31,293 treatments for syphilis were given by the clinic's small staff. Thus, this streamlined procedure was indeed important.

### The Establishment of Camp Garraday

The number of indigent people coming to Hot Springs seeking medical treatment continued to increase peaking in 1935 when 14,946 applicants were examined in the clinic and 159,833 baths were given. The population of Hot Springs was approximately 21,000 in 1940. Housing for these patients was a chronic problem.

In 1933, the Emergency Relief Administration authorized funding for the Arkansas Transient Bureau. Centers were opened at Fort Smith, Hot Springs, Little Rock and Texarkana. Prior to the construction of the Hot Springs camp in 1934, housing was rented for the transient patients in twenty hotel buildings, housing 1,318 lone men and women. When the camp opened, the number of shelters operated for single men was reduced to two. Two shelters were operated for single white women and three for blacks - one for single women and two for single men. The

Hot Springs camp was the first to open on November 14, 1933. This camp was built specifically to house transients who came to Hot Springs for treatment of venereal disease at the U.S. Public Health Service Clinic. The camp was named Camp Garraday in honor of two prominent residents of Hot Springs: Chancery Judge Samuel W. Garratt and Garland County & Probate Judge Charles H. Davis. It was erected on a thirty-three acre tract of land adjacent to the national park, which was donated by Hot Springs and Garland County, in the Gulpha Gorge Campground area. By October 1934, construction had begun on the dormitories and the administration building, and during November utilization of completed portions was begun. The camp was composed of nine barracks or dormito-

ries, which accommodated 500 comfortably; an infirmary of approximately 60 beds and sufficient space for a clinic which was provided to treat patient's minor illnesses; a central combination kitchen and a mess hall; a well built recreation hall; and a central administration building. The expenditure for construction of the camp was slightly over \$106,000.



Figure 4: Treatment method at Venereal Disease Clinic, ca 1925. Photo by W.M. Tyler. (Wenger Papers, UAMS Library, Historical Research Center).

The report of the Transient Relief activities director in Arkansas acknowledged that the Hot Springs camp was a unique situation, probably the best equipped place for treatment of venereal diseases in the U.S., because of the operation of the USPHS Clinic. By a cooperative agreement between the USPHSC and the Transient Division, many indigent patients received treatment for venereal disease.

In 1934, the first year that Camp Garraday was open, 6,682 persons applied for treatment at the clinic; an increase of 65.6 percent over the preceding year. Injections of Arsphenamine rose to 25,072 — a 74.8 percent increase over the previous year. Treatment for transient patients had been improved greatly because of the Transient Bureau's provision of housing for those unable to pay their own expenses.

Most of the patients sent to Camp Garraday were males. Females and families receiving treatment at the free clinic were provided lodging in houses



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throughout the city under contract with the Transient Bureau. In the 1935 Superintendent's report, the tremendous load on the Free Bath House was cited as a major problem and any advertising or publicity about the free baths was discouraged. Their statistics showed that, of persons receiving baths, every state in the union was represented as well as Canada and the Canal Zone. Only 26 percent of the total bathers were from Arkansas, making the problem a national as well as a local or state one.

This trend began a reversal in 1936 when the num-

ber of applicants decreased from 14,946 to 8,490 because of the restriction of admissions to early infectious cases and to curtailment of the Transient Bureau's relief program. Although the Bureau continued to provide domiciliary care, it had to reduce its intake.

In 1936, the US Public Health Service assumed responsibility for Camp Garraday. Through a series of government transfers, by September 1938, both Camp Garraday and the USPHS Clinic were administratively a part of the Public Health Service.

## LATER DEVELOPMENTS

About 1942, a new concept for treatment of venereal disease was advocated. Drawing on the concept, pioneered at Hot Springs, of the advantage of providing hospital care for transient venereal disease patients in order to insure completion of treatment, a number of special venereal disease hospitals were established nationwide, known as Rapid Treatment Centers. These centers were developed by the Public Health Service in cooperation with State departments of health. They were special hospitals for the administration of new types of treatment for syphilis and gonorrhea. The treatment schedules ranged from 1 day to 8 weeks as contrasted with 18 months required by standard methods. Thus, a large number of individuals could be rendered noninfectious with a minimum of medical and professional personnel. By June 1944, there were 58 of these centers operational in 38 states and 3 territories. When begun the average length of stay was 22 days, but with the introduction

of penicillin therapy, that was reduced. These Rapid Treatment Centers accepted voluntary applicants and patients referred by private physicians or clinics.

In 1946, funds for the Rapid Treatment Centers were transferred to the PHS from the Federal Works Agency. The average length of stay had been reduced to 11 days for syphilis patients and to 3 days for gonorrhea patients.

With newer therapies and decreased length of stay for venereal disease patients, domiciliary care was not necessary. The peak business year for the bathhouse industry in Hot Springs was 1946. Baths had ceased to be used as treatment. Because of increased cost and decreased demand, the bathhouses ceased to provide baths. Today only one bathhouse remains open on Bathhouse Row. The Government Free Bathhouse closed on April 10, 1953 and plans were made for indigent bathers to have baths in privately owned bath-

houses with the cost paid by the government. In 1958, the bathhouse facility was converted to a physical medicine center specializing in underwater therapy — the Libbey Memorial Physical Medicine Center.

Regarding Camp Garraday, which had provided domiciliary care for patients for about a decade, the USPHS Medical Center changed its focus. It concentrated on research and training, and for a few years it housed a cancer research program. Today, the property is within the boundaries of the National Park and the Hot Springs school district administrative offices are located there.

In the 1940's, the waters were abandoned as treatment for venereal diseases as was the attempt by various agencies of the federal government to provide free treatment for the indigent. The USPHS Clinic is a part of the past as is the pioneering concept of domiciliary care for venereal disease patients developed at Hot Springs.

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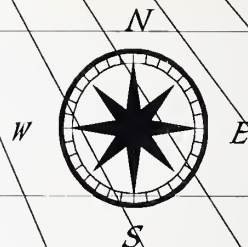
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### *THURSDAY, MAY 4, 1995*

- |           |                              |
|-----------|------------------------------|
| 9:00 a.m. | Golf Tournament              |
| 1:00 p.m. | Registration Opens           |
| 1:00 p.m. | Seminar for Young Physicians |
| 2:00 p.m. | Council Meeting              |
| 3:30 p.m. | Welcome Reception/Exhibits   |
| 5:00 p.m. | House of Delegates           |
| 7:00 p.m. | Opening Night Party          |

### *FRIDAY, MAY 5, 1995*

- |            |   |
|------------|---|
| 7:30 a.m.  | Council Meeting                             |
| 9:00 a.m.  | Exhibit Center Open<br>(Breakfast served)   |
| 10:45 a.m. | First Session Speaker                       |
| 12:30 p.m. | Shuffield Lecture/Luncheon                  |
| 2:15 p.m.  | Exhibit Center Open<br>Grand Prize Drawings |
| 3:30 p.m.  | Second Feature Session                      |

### *FRIDAY, MAY 5, 1995 CONTINUED*

- |           |                                     |
|-----------|-------------------------------------|
| 5:30 p.m. | Blue Cross Blue Shield<br>Reception |
|-----------|-------------------------------------|

*Evening is free to enjoy the night life of Hot Springs.*

### *SATURDAY, MAY 6, 1995*

- |            |   |
|------------|---|
| 7:30 a.m.  | Council Meeting                               |
| 8:00 a.m.  | Early Morning Refreshments                    |
| 8:45 a.m.  | Third Session Speaker                         |
| 10:30 a.m. | House of Delegates                            |
| 12:30 p.m. | Fifty Year Club Luncheon                      |
| 12:30 p.m. | Specialties & Committees<br>can elect to meet |
| 6:00 p.m.  | Hospitality Hour                              |
| 7:00 p.m.  | Inaugural Banquet                             |
| 8:30 p.m.  | President's Reception<br>& Dance              |

### *Date & Location*

- \*Arlington Hotel*
- \*Hot Springs, Arkansas*
- \*May 4-6, 1995*

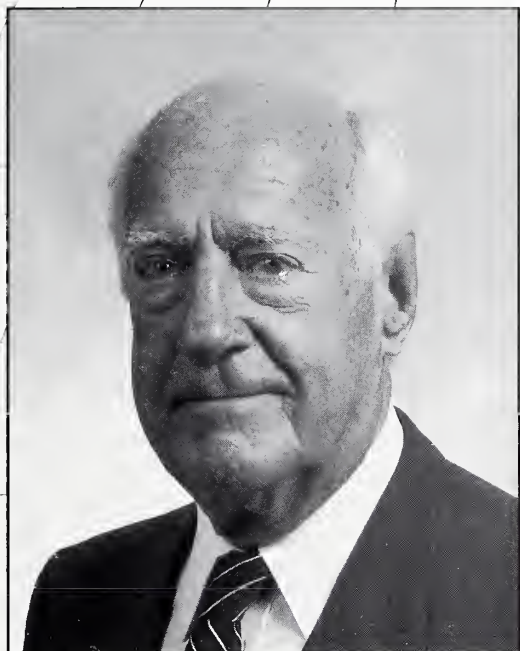
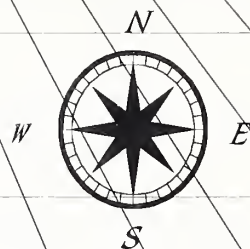
### *Featuring*

- |                              |   |
|------------------------------|---|
| <i>*Educational Sessions</i> | <i>*Inaugural Banquet<br/>&amp; Dance</i> |
| <i>*CME</i>                  | <i>*Entertainment</i>                     |
| <i>*Exhibits</i>             |   |



# ARKANSAS MEDICAL SOCIETY 1995 ANNUAL CONVENTION

## "CHARTING THE COURSE"



### Dr. Edward R. Annis

Edward R. Annis, M.D. will be the keynote speaker at the House of Delegates at the 119th AMS Annual Session at the Arlington Hotel on Thursday, May 4, 1995 at 5:00 p.m. Dr. Annis offers a comprehensive look at the free market alternative to the health care system that would restore the traditional doctor/patient relationship.

Dr. Annis, author of *Code Blue: Health Care in Crisis*, champions the fight to head off government intrusion between doctor and patient and dispels the myth that a "managed" health care system would solve America's problems.

What the press doesn't tell the public - but Dr. Annis does - is that the problems in health care have a "Made in Washington" label. Health care is the most overregulated industry in America. To correct the problem we need less government, not more, and he prescribes a solution to eliminate government interference in the health care industry.

Dr. Annis is the past president of the American Medical Association and the World Medical Association. Many will remember his famous speech as he delivered the physicians' rebuttal to President Kennedy's proposals to move medicine towards socialized medicine. Since 1963, he has been one of the country's most vocal supporters of the free market health care system.

### Keynote Speaker:

Edward R. Annis, M.D.

**"Medical Practice in Turmoil -  
What Lies Ahead?"**

--Thursday, May 4, 1995 5:00 p.m.

### Date & Location

\*Arlington Hotel

\*Hot Springs, Arkansas

\*May 4-6, 1995

### Plus

\*CME Hours & Exhibits

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1995 ANNUAL CONVENTION

# "CHARTING THE COURSE"



## Featured Speaker:

*Dr. Lenore E. A. Walker*

*--Friday, May 5, 1995 10:45 a.m.*

## Date & Location

*\*Arlington Hotel*

*\*Hot Springs, Arkansas*

*\*May 4-6, 1995*

## Dr. Lenore E.A. Walker

Dr. Lenore E.A. Walker, a licensed psychologist and President and Chief Executive Officer of Walker & Associates, a Denver based consulting firm providing clinical and forensic psychological services around the world, will be speaking on domestic violence on Friday, May 5 at 10:45 a.m.

Dr. Walker is also founder and Director of Domestic Violence Institute, a non-profit institute which conducts research on family violence. Formerly Director and Principal Investigator of Battered Women Research Center, Dr. Walker received National Institute of Mental Health funds to conduct research into the battered women syndrome.

She frequently testifies as an expert witness in civil, criminal and regulatory board legal actions involving abused persons. As a recognized authority in this area, she consults with business, governmental and non-governmental agencies around the world, has testified before Congress and authored ten books.

Dr. Walker has worked as a clinical, forensic, consulting, and school psychologist for almost thirty years. She is in private practice in both the Denver area and Ft. Lauderdale and Miami. In 1987, Dr. Walker was awarded one of the highest honors in the American Psychological Association, the Distinguished Professional Contributions to Public Service Award.

She has appeared on Nightline, Oprah Winfrey Show, Today Show, Good Morning America, CNN and TBS.

## Plus

*\*CME Hours & Exhibits*

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*\*Entertainment*



# Ten Ways to Alienate a Patient During One Office Visit

Kathleen M. Roman\*

Nearly three quarters of malpractice lawsuits that doctors lose reflect poor doctor-patient communication. Increasingly, professional liability insurers, and medical schools, are pushing for better communication skills as a means of alleviating this kind of lawsuit.

But there are pockets of resistance. "How shall I be compensated for the extra time I'm expected to spend with patients?" demanded a physician at a recent risk management seminar presented by The Medical Protective Company. Implicit in the question, of course, is the assumption that a doctor can either be a great communicator—or a great physician, that a combination of the two skills is mutually exclusive.

Quickly being pushed into a market-driven mode, physicians can benefit from the approach that looks at the practice from the patient's perspective. Practice management experts recommend that doctors call their own offices to see how the scheduling process works and to check on answering service procedures.

An independent study conducted by Miles Laboratories concluded that one in four U.S. patients had switched physicians at least once, not because of the doctor's technical skills, but because of poor communication skills.

## 1 OFFICE APPEARANCE

Is your office clean, especially the restrooms and is there a general feeling of good maintenance? Torn upholstery, chipped furniture, stained or worn carpeting, raggedy magazines or broken children's toys give a run-down appearance that implies your practice isn't very successful.



\*Kathleen M. Roman is Assistant Vice President of Risk Management at The Medical Protective Company, Fort Wayne, Indiana.

## 2 FIRST IMPRESSIONS DO MATTER

Everyone who approaches your front desk should be greeted immediately—even if it's only a smile and a nod from the reception-

*Hello, Mrs. Smith.  
How are you today?*

ists who may be on the phone. People deserve to be acknowledged; paperwork is not as important as patients. Patients should be addressed by their formal titles, unless they specifically request to be called by their first names. And ask your staff members who conduct patients to examining rooms not to race off leaving a woman with a babe-in-arms, a toddler, and a diaper bag, or an older person who may be unsteady on his/her feet with the impression that if they can't keep up they'll be left behind. All staff education should support a common practice goal: helping the patient—not evading the patient or protecting the practice from the needs of the patient.

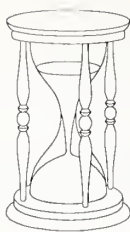
## 3 COMFORT AND SAFETY

If children are frequent guests in your waiting room, make sure that there is a separate place for them to entertain themselves with safe, appropriate playthings. If at all possible, this area should be off to one side so that parents of youngsters can congregate there and older people can wait with relative impunity from childish energies. It is certainly acceptable, and indeed wise, for members of your staff to address boisterous children if the parent will not handle the situation. "Johnny, all the people who work here in Dr. Smith's office, really enjoy having a special place for our young guests to play. But we would feel very sad if you were to get hurt by playing outdoor games here inside. Let's see if we can find a different way to play with the toys so that you can still have fun but not get hurt."



## 4

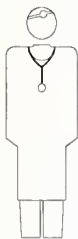
## WAITING TIME



Studies indicate that most patients are willing to wait for approximately thirty minutes; then they become impatient. Your staff should be quick to let waiting patients know if the wait will exceed their patience. Offering patients a chance to reschedule—or step out to run an errand and still return in time for their appointments—increases their feeling that the practice cares about them as individuals. Additionally, the time saved if a patient does decide to reschedule can help get the practice back on track on those terribly busy days. Additionally, patients understand when doctors need to squeeze patients in for emergency treatment; they hope that there will be time to accommodate them, too, when they need prompt attention. But the awareness will not occur without the necessary staff-patient communication.

## 5

## PATIENT EDUCATION



Physicians are very busy people. Sometimes their explanations of certain health conditions, medications, or treatment modalities are cursory at best. But repeated research results show that patients who understand their condition and the treatment choices are much more likely to be compliant—and satisfied with the treatment they've received. It is in the best interest of both doctor and patient for educational processes to be introduced into office practice. A qualified nurse may be able to provide patients with valuable information. Additionally, written educational materials are particularly useful because they give the patient time to read the material at home and formulate any questions. Patient education enhances the informed consent process, although the doctor's informed consent responsibility exists above and beyond the basic levels of patient education.



## 6

## BASIC MANNERS

Readers who are old enough to remember the television show "St. Elsewhere" will remember Dr. Craig, the prototype chief of surgery, a man with enormous technical skill and very poor interpersonal skills. In fact, he was abrupt, rude, and sarcastic. Increasingly, this model of acceptable behavior is being replaced by physicians who understand that alienating patients, colleagues, and other health

care professionals is detrimental to the cause of good health care and very advantageous to plaintiffs' attorneys! Medical schools are beginning to look at the interpersonal skills of their students as a means of addressing the increasing requirements of managed care, that "quality" must somehow be measured. And many of these entities are willing to accept the patient's assessment of whether or not an outcome was representative of quality care. Dr. Craig might not be revered in many of today's hospitals, HMOs, or PPOs.



## 7

## LISTENING SKILLS



Superior communication skills are highlighted by the ability to listen. Current research indicates that most physicians allow a patient approximately thirty seconds to speak before interrupting, perhaps eliminating the most important piece of information about the visit and putting the doctor in a position to render a care decision without all the facts. Listening and the ability to reconfirm information given and received at the end of a conversation are two of a physician's most valuable communication skills.

## 8

## PRESCRIPTION PROBLEMS

Do not ever leave prescription pads lying where patients can access them. And do not give "tide over" prescriptions to strange patients who need just a few pills to get them through their vacation and home again. Be very suspicious of requests without examinations, especially when the patient requests a specific drug; numerous scams seek to extricate prescriptions from doctors.



## 9

## PATIENT CONFIDENTIALITY

Do not leave any information about a patient lying around where another guest in the office may see it—even upside down. Do not fax anything of a confidential nature; a high percentage of faxes go astray and you may be accused of violating the patient's right to privacy.





OFFICE  
POLICY

Make sure that every new patient is given a written copy of your office payment policy. There should be no unpleasant surprises, for either doctor or patient, regarding method and timing of payment. Ascertain that patients

who may be having trouble paying a bill know they should contact your office to work out a fee schedule, that you are willing to work with them if they are honestly willing to address their debt. Ask yourself if it is wise to turn a bill over to a collection agency before the statute of limitations has run; you may be asking for a malpractice lawsuit.

These ten common problems, properly addressed within your practice, may increase your practice's morale as well as efficiency. You may find that you yourself enjoy the practice of medicine more because both your staff and your patients are happier. But the most important issue is that you will be safer from allegations of malpractice!



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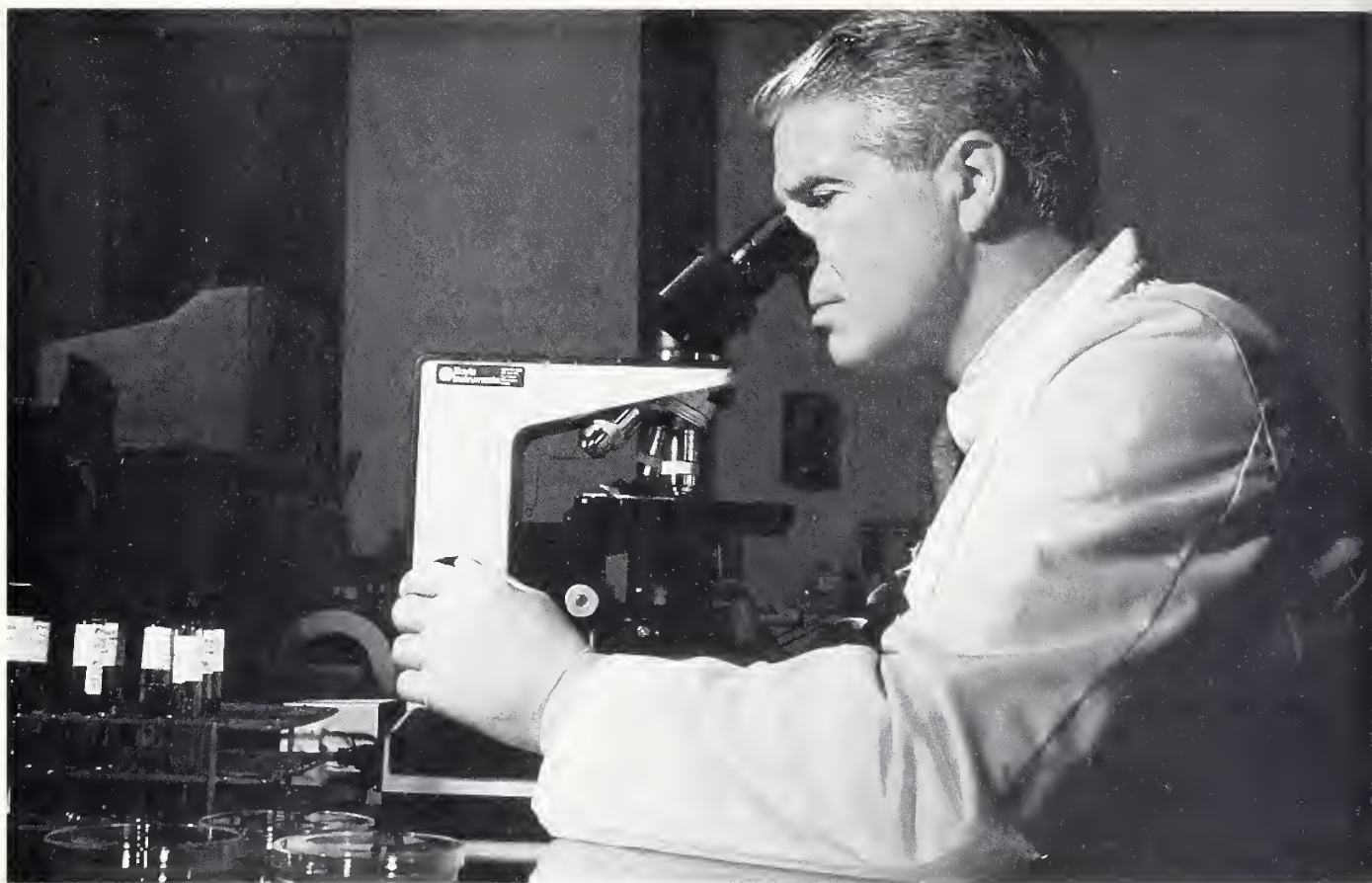


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## HIRUDIN

### INTRODUCTION

Thrombosis of a coronary artery is the underlying pathophysiology of acute myocardial infarction (MI). Clinicians and scientists are now attacking arterial thrombosis with targeted therapy directed at the platelet, thrombin, and thrombus. *Integrelin*, a cyclic heptapeptide IIb/IIIa platelet inhibitor, was discussed in the October 1994 issue of CCU. *TPA*, a second generation thrombolytic agent, was discussed in the December 1994 issue. This issue of CCU will focus on a new **antithrombin**, **hirudin**.

### PATHOPHYSIOLOGY

Hirudin was discovered by Haycraft 1884 but was not isolated until 1957. It is derived from the parapharyngeal glands of the leach, *Hirudo medicinalis*. It is composed of 65 amino acids. It has an anticoagulant effect of 2-4 hours which mandates continuous intravenous administration. It undergoes renal excretion and requires dose titration in patients with renal insufficiency. Animal studies have shown a potential for mutagenesis, thereby limiting use in females of childbearing potential. Allergic reactions have not been reported. It is now produced by recombinant DNA technology (r-hirudin) which has increased available quantities, allowing for full evaluation of its therapeutic potential in man.

### MECHANISM OF ACTION

Hirudin is a potent anticoagulant. It binds directly to thrombin, thereby blocking fibrinogen binding and the conversion of fibrinogen to fibrin (*Figure 1*). It does

not require intermediate molecules, such as anti-thrombin III, to be active and, therefore, is not subject to the variability of anti-thrombin III levels or activity of proteolytic enzymes such as heparinases. An aPTT of 60-80 seconds is therapeutic.

### CLINICAL TRIALS

Dosing studies were performed in patients who were at risk of deep venous thrombosis, restenosis after coronary angioplasty, and acute myocardial ischemia due to coronary artery disease. A satisfactory safety profile in these conditions has lead to clinical trials in humans.

### DEEP VENOUS THROMBOSIS

Hirudin was used in 1,120 patients as prophylaxis of deep venous thrombosis after elective total hip replacement. It was shown to be twice as effective as heparin in reducing the overall rate of deep venous thrombosis and at least six times more effective than heparin in reducing the development of proximal deep venous thrombosis. Bleeding rates were similar to heparin.<sup>1</sup>

### CORONARY ANGIOPLASTY

Hirudin or heparin was used in 113 patients with stable angina undergoing elective coronary angioplasty. Restenosis of the dilated site was the primary endpoint of the study. Initial recruitment is completed, and follow-up angiography is now being performed. There was a dramatic decrease in thrombotic complications following the coronary angioplasty (*Figure 2, right panel*). In those treated with heparin, there was a 10.3% incident of death, MI, or need for emergency coronary surgery. This rate was reduced to 1.4% with the use of hirudin.<sup>2</sup>

\* Dr. Talley is with the Division of Cardiology, Department of Internal Medicine, University of Arkansas for Medical Sciences.



Figure 1. Hirudin binds directly to thrombin, blocking the conversion of fibrinogen to fibrin.

## UNSTABLE ANGINA PECTORIS

Hirudin was compared to heparin in 166 patients with unstable angina pectoris and non Q-wave MI. In this trial, the occurrence of death or MI was reduced nearly four fold (heparin 8% compared to hirudin 2.6%) (figure 2, middle panel).<sup>3</sup>

## ACUTE MYOCARDIAL INFARCTION

There are three trials currently evaluating the efficacy of hirudin in patients with acute MI, GUSTO IIb (Global Use of Strategies to Open Occluded Arteries), TIMI-9B (Thrombolysis and Thrombin Inhibition in Myocardial Infarction) and HIT-III (Hirudin for the Improvement of Thrombolysis). All trials use aspirin and either heparin or hirudin in combination of thrombolytic therapy in patients with acute MI. An excessive rate of intracranial hemorrhage occurred with both heparin and hirudin which required a lower dose in these drugs and trial reconfiguration. Risk factors for the occurrence of intracranial hemorrhage included age greater than 75 years, creatinine greater than 2.0 mg/dl., and aPTT greater than 100 seconds. Nonetheless, the use of hirudin, cut in half the incident of death or recurrent MI compared to that of heparin (Figure 2, left panel) <sup>4,5,6</sup>

## CONCLUSION

Hirudin is a recombinant peptide which selectively and irreversibly inhibits thrombin. This new antithrombin offers promise in the treatment of venous and arterial disorders including deep venous thrombosis, restenosis after coronary angioplasty, and the management of acute ischemic syndromes related to coronary artery disease.

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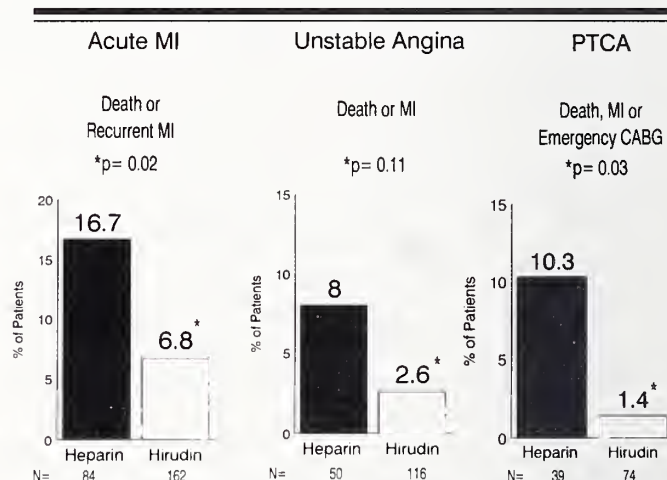


Figure 2. Clinical outcomes in patients treated with either heparin or hirudin. In all diseases studied, ranging from acute MI, unstable angina, to coronary angioplasty, there is a dramatic decrease in the occurrence of death or myocardial infarction with hirudin. (From Becker RC, Cannon CP: Hirudin: Its biology and clinical use. *J Thrombosis Thrombolysis* 1994; 1:7-16, with permission.)



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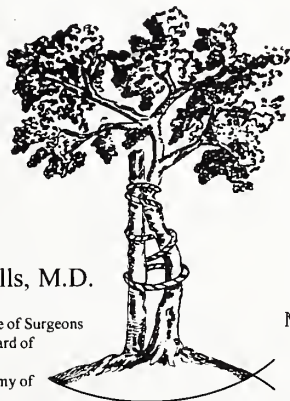
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- Enhancing the doctor-patient relationship
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# Outdoor MO

Information provided by  
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## FEDERAL INVESTIGATORS STUDY EAGLE DEATHS

During World War II, Winston Churchill described Russia as "an enigma wrapped in a riddle and surrounded by a mystery." This description may also be appropriate for the DeGray Lake bald eagle deaths. Federal officials recently arrived at DeGray in southwest Arkansas to join an extensive investigation into why the birds have died.

Ken Smith, an Arkansan who is deputy director of the U.S. Department of the Interior, agreed to a request for federal help on the investigation. Steve N. Wilson, director of the Arkansas Game and Fish Commission, made the plea to Smith.

The first federal officials on hand at DeGray were Dr. Kimberli Miller, who has supervised testing of some of the dead eagles at the National Wildlife Health Center at Madison, Wisconsin, and Dr. Chuck Faishauer, a toxicologist with the U.S. Fish and Wildlife Service at Atlanta, Ga. Dr. Ron Pulliam, director of the National Biological Service, a division of the Interior Department, may also visit.

### SOME KEY FACTS:

- \* From Thanksgiving Day to late January, 25 eagles have been found dead.
- \* No wounds have been found on any of the dead birds, although some have shown evidence of scavenging and decomposition.
- \* No signs of poisoning, botulism or other diseases have been found in laboratory tests.
- \* Some bacterial infection including strains of E. coli was found in four birds autopsied at the Arkansas Livestock and Poultry Commission laboratory in Little Rock, but a cause for this infection was not found, according to Dr. James Britt, veterinary pathologist.
- \* A U.S. Fish and Wildlife Service specialist found 50 raptors scavenged coots January 11 near where the majority of the eagles have died.
- \* Coots, ducklike birds of the rail family, are a favorite food of the bald eagles and feed on algae.
- \* Coot feathers have been found in the digestive tracts of some dead eagles.
- \* Authorities recently captured a sick eagle that showed signs of paralysis common to some algae-produced toxins. The bird died the day after being captured.

### FOR THE RECORD: THE FIRST THEORY

Dr. Paul Norris, director of the Livestock and Poultry Commission's diagnostic lab, said, "Everything is pointing to neurotoxins." Produced naturally, the neurotoxin being examined "blocks the enzyme that actually fires the nerve," causing paralysis and death, he said. "We've got a good set of symptoms that go along with neurotoxin." But, he noted, "It could be some other toxin." Investigators have pretty much excluded infectious disease caused by a bacteria, virus or parasite. Dr. Kimberli Miller said algae-produced toxins appear a possibility, but no die-offs of algae-feeding fish or other animals that may have come in contact with such a toxin have been found.

### SOME PUZZLING ASPECTS OF THE EAGLE DEATHS:

- \* No dieoffs of other birds or animals have occurred at DeGray. Testing of one dead mallard duck and one dead coot recovered at the lake revealed nothing.
- \* No piles of chicken carcasses, a cause of deaths of about three dozen birds of prey in northwest Arkansas two years ago, have been found near DeGray. The northwest Arkansas deaths were due to botulism; this hasn't been found in the DeGray birds.
- \* Two bald eagles which have taken up residence at DeGray and that built a nest last spring are still on hand at the lake and apparently in good health.
- \* Most of the dead eagles have been found in a three-mile section along the south shore of the lake. Some sick birds have been found dead 24 hours to 48 hours after being seen sick. Two sick birds died at the facilities of a Hot Springs wildlife rehabilitator. Investigators said poisoning nearly always means quick, not lingering, death for eagles as does botulism.

## SHOOTING RANGE OFFERS CONVENIENT FACILITY TO SHARPEN SKILLS

A convenient facility in central Arkansas is the Arkansas Game and Fish Commission range at Camp Robinson Wildlife Demonstration Area east of Mayflower. Take state Highway 89 east from Interstate 40, cross Lake Conway, then look for signs.

The range is open from 9 a.m. to 5 p.m. Wednesdays through Saturdays. There is a rifle range with covered shooting benches and target holders at several distances, a range for handguns, a trapshooting facility and a skeet range.

Cost is \$2 per person for rifle or pistol practice, with targets included. Skeet and trap costs \$3 per round of 25, with targets furnished. Shooters supply their own ammunition.

## 29 HUNTING ACCIDENTS REPORTED; MANY ARE SELF-INFLICTED

Twenty-nine hunting-related accidents have been counted since September 1, 1994, in Arkansas.

Fifteen of the 26 accidents in which reports have been completed were self-inflicted. Reports are still incomplete on three accidents. There have been four fatalities, all involving deer hunting.

Out of a total of 23 deer hunting accidents, 8 involved falls from tree stands.

There were four squirrel hunting accidents and one each in duck and armadillo hunting.

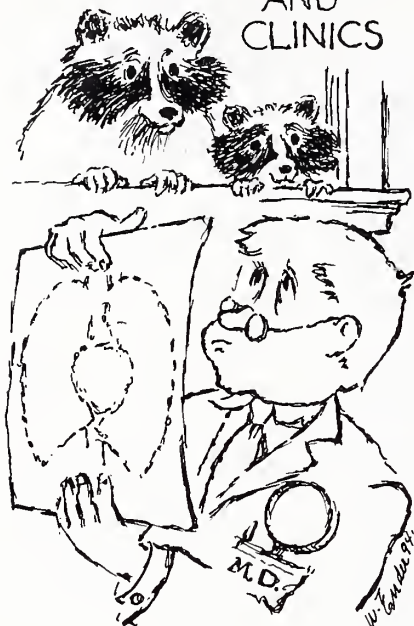
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## ANNOUNCING

*"The Register of  
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Registration is underway for consultants in approximately 300 technical fields. Distribution of this comprehensive guide will be made to Law Libraries and attorneys throughout the State of Arkansas.

For registration  
information, please  
contact Dianne Maddox,  
Director of Registries,  
(816)761-5485.

**ARKANSAS** - Partnership opportunity! BC/BE pediatrician needed to join busy, established practice. Solid referral pattern, new office adjacent to well-equipped hospital (Level II nursery). Income potential \$200K plus, two-year guarantee, comprehensive benefits. University, great schools, affordable housing, 1 hour to major metro. Call or send C.V. to Jane Vogt, 800-765-3055, 222 S. Central, Suite 700, St. Louis, MO 63105, FAX: (314) 726-3009.





# Arkansas HIV/AIDS Report

## 1983-1995

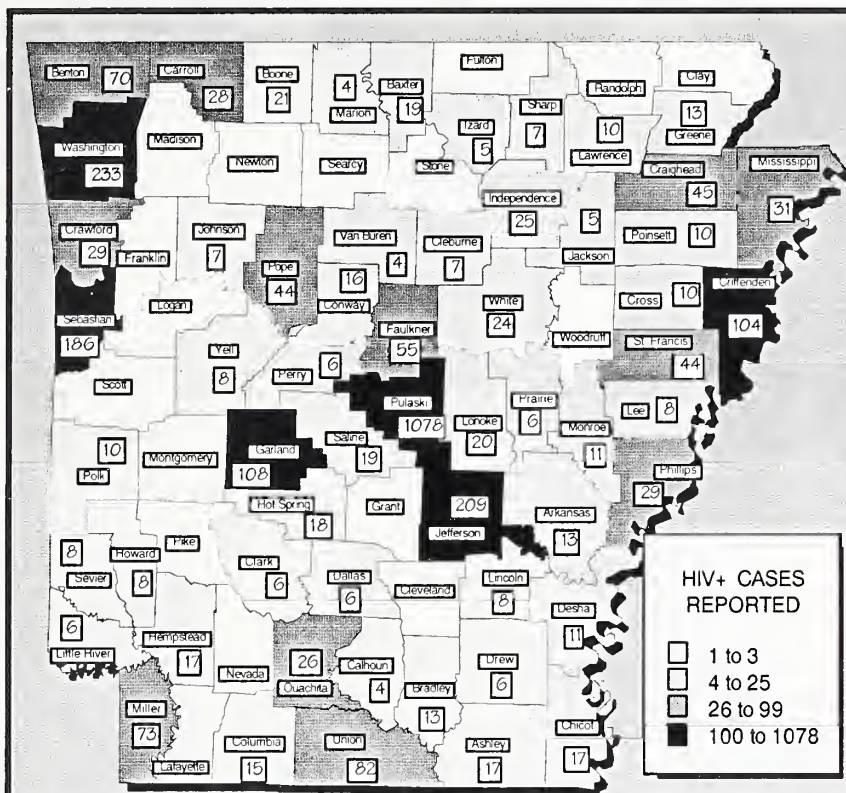
### HIV in Arkansas

#### Reporting Requirements

HIV and AIDS case reporting by name and address is required by Act 967 of 1991 and the rules and regulations of the Arkansas Board of Health. Reporting is required at the time a person tests positive and again when they become symptomatic with AIDS. Those required to report include: physicians, nurses, infection control practitioners/infection control committees, laboratory directors, medical directors of nursing homes and home health agencies, clinic administrators, program directors of State agencies and or persons as may be required by the Board of Health.

Questions regarding reporting forms and requirements may be directed to Jan Bunch, HIV/AIDS Surveillance Coordinator at 1-501-661-2387.

Note: AIDS statistics are a subset of HIV statistics



#### HIV+ CASES REPORTED

- 1 to 3
- 4 to 25
- 26 to 99
- 100 to 1078

County of residence at the time of test for the 2976 Arkansans reported to be HIV+. (12/13/94)

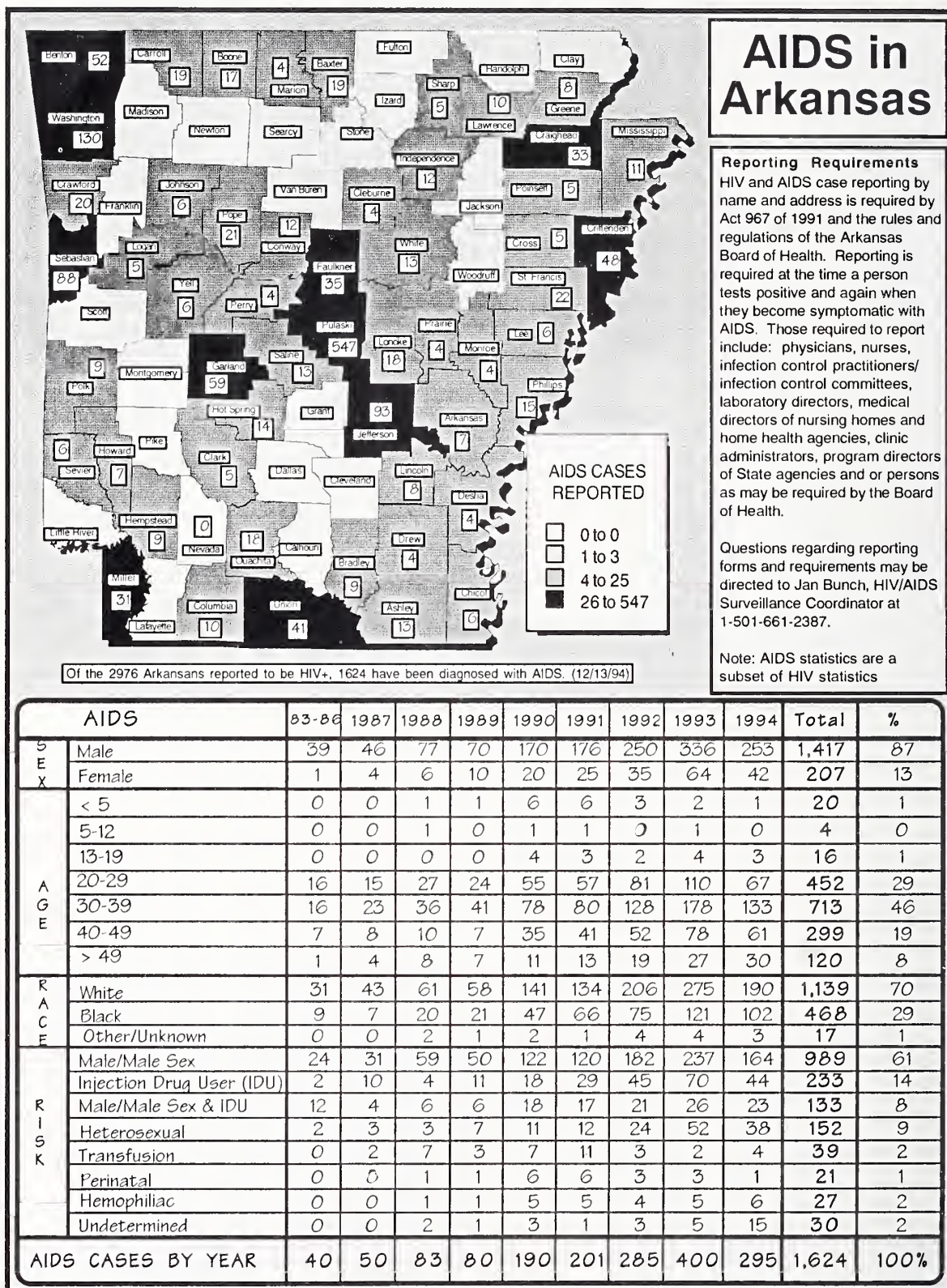
HIV		83-86	1987	1988	1989	1990	1991	1992	1993	1994	Total	%
SEX	Male	51	49	215	248	413	400	392	352	367	2,487	84
	Female	2	6	26	37	68	85	81	94	90	489	16
AGE	< 5	0	1	1	2	0	13	6	3	7	41	1
	5-12	0	0	1	1	5	1	2	1	0	11	0
	13-19	0	0	7	8	14	19	25	11	22	106	4
	20-29	18	15	110	123	183	149	156	175	145	1,074	37
	30-39	22	22	86	103	196	208	179	168	171	1,155	39
	40-49	11	11	25	35	56	70	67	65	77	417	14
	> 49	2	6	6	11	17	22	38	23	35	160	5
RACE	White	40	47	170	174	328	298	291	277	258	1,883	63
	Black	13	0	69	106	151	184	173	163	182	1,049	35
	Other/Unknown	0	0	2	5	2	3	9	6	17	44	2
RISK	Male/Male Sex	31	33	132	138	241	241	257	238	221	1,532	52
	Injection Drug User (IDU)	4	9	30	48	73	96	75	64	71	470	16
	Male/Male Sex & IDU	14	5	23	24	32	30	32	26	22	208	7
	Heterosexual	3	2	24	26	59	64	67	98	81	424	14
	Transfusion	1	4	5	4	6	8	10	0	1	39	1
	Perinatal	0	1	1	2	8	13	8	4	7	44	2
	Hemophiliac	0	0	0	6	18	5	6	2	3	40	1
	Undetermined	0	1	26	37	44	28	18	14	51	219	7
HIV CASES BY YEAR		53	55	241	285	481	485	473	446	457	2,976	100%

Source: AIDS Surveillance Unit, Arkansas Department of Health.



# Arkansas HIV/AIDS Report

## 1983-1995

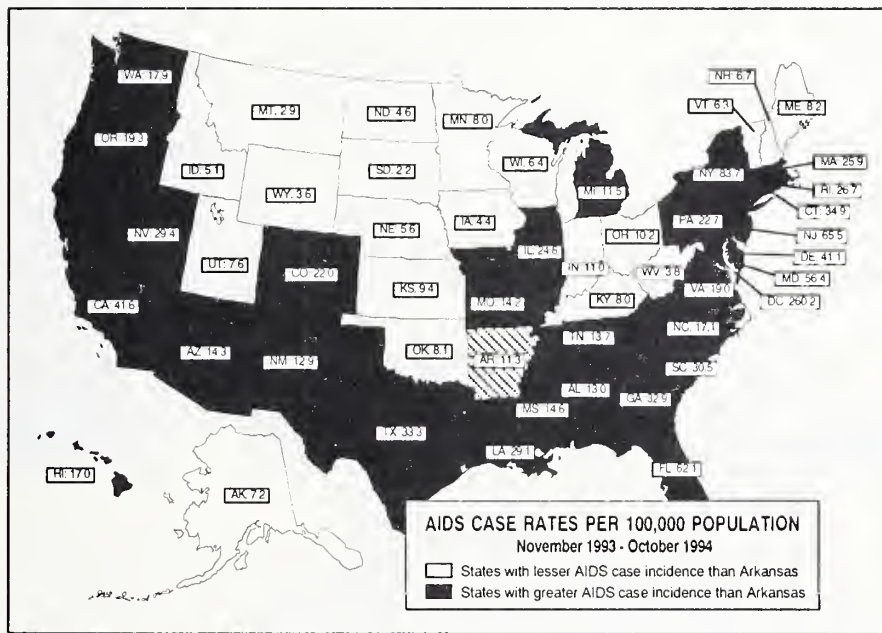


Source: AIDS Surveillance Unit, Arkansas Department of Health



# Arkansas and the Nation

	Arkansas	United States
Total AIDS Cases Reported, JUN – DEC 1994	295	82,355
AIDS Case Rate per 100,000 population	11.3	31.4
Cumulative AIDS Case Reports: 1983 - PRESENT*	1,624	429,923
Adult	1,600	423,870
Pediatric	24	6,053
Deaths: 1983 - PRESENT*	773	243,423
Adult	763	240,323
Pediatric	10	3,100
Mortality Rate	47.6%	56.6%



	Arkansas	United States
Men who have sex with men	61%	53%
Heterosexuals who use Injected Drugs	14%	25%
Men who have sex with men and use Injected Drugs	8%	6%
Heterosexual contact with a person at risk	9%	7%
Transfusion with blood products	2%	2%
Infants born to HIV-infected mothers	1%	1%
Persons with hemophilia	2%	1%
Risk unknown at this time	2%	6%

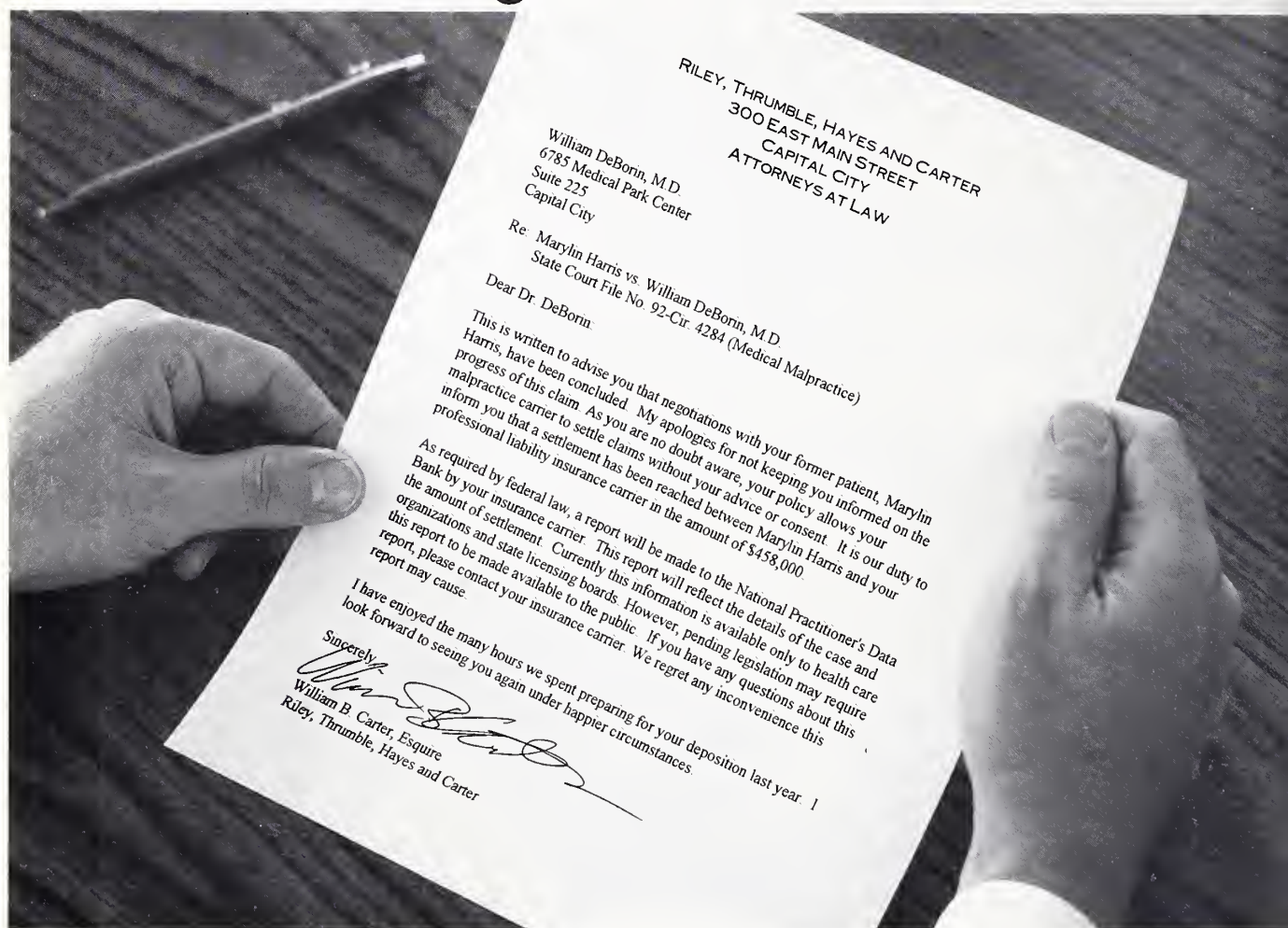
\* All Arkansas statistics are valid through December 12, 1994; U.S. information for deaths and risks is current through June 30, 1994; all other U.S. information is valid through October 31, 1994.

**CASE RATES  
PER 100,000**

DC	260.2
NY	83.7
NJ	65.5
FL	62.1
MD	56.4
CA	41.6
DE	41.1
CT	34.9
TX	33.3
GA	32.9
SC	30.5
NV	29.4
LA	29.1
RI	26.7
MA	25.9
IL	24.8
PA	22.7
CO	22.0
OR	19.3
VA	19.0
WA	17.9
NC	17.1
HI	17.0
MS	14.6
AZ	14.3
MO	14.2
TN	13.7
AL	13.0
NM	12.9
MI	11.5
ARKANSAS	11.3
IN	11.0
OH	10.2
KS	9.4
ME	8.2
OK	8.1
KY	8.0
MN	8.0
UT	7.6
AK	7.2
NH	6.7
WI	6.4
VT	6.3
NE	5.6
ID	5.1
ND	4.6
IA	4.4
WV	3.8
WY	3.6
MT	2.9
SD	2.2

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# New Members

## CONWAY

**Dixon, Jerry Wayne**, General & Vascular Surgery. Medical education, UAMS, 1987. Internship/Residency, Tripler Army Medical Center, Honolulu, Hawaii, 1988/1992. Board certified.

## HOT SPRINGS

**Brady, Donald P.**, Neurology. Medical education, University of Illinois College of Medicine, 1987. Internship/Residency, Cleveland Clinic Educational Foundation, 1988/1991.

**Jackson, Michael S.**, Family Practice. Medical education, Louisiana State University, New Orleans, 1983. Residency, Anderson Memorial Hospital, Anderson, South Carolina, 1986. Board certified.

## JONESBORO

**Ameika, James Allen**, Cardiothoracic Surgery. Medical education, UAMS, 1981. Internship/Residency, Tripler Army Medical Center, Honolulu, Hawaii, 1982/1986. Board certified.

**Deem, Brent Shawn**, Diagnostic Radiology. Medical education, University of Health Sciences - College of Osteopathic Medicine, Kansas City, Missouri, 1989. Internship, Metropolitan Hospital, Grand Rapids, Michigan, 1990. Residency, Tulsa Regional Medical Center, 1994. Board certified.

## LITTLE ROCK

**Briggs, Dale Dildy**, Pediatrics. Medical education, UAMS, 1963. Internship/Residency, UAMS, 1963/1966. Board certified.

**Rozas, David R.**, Ophthalmology. Medical education, Louisiana State University, Shreveport, 1989. Internship/Residency, UAMS, 1990/1994. Board pending.

**Tharp, John Gary**, Child and Adolescent Psychiatry. Medical education, University of Texas Southwestern Medical School, Dallas, 1989. Internship, University of Texas Southwestern Medical School, 1990. Residency, University of Texas Southwestern Medical School, 1992 and UAMS, 1994. Board eligible.

**VanZandt, Janelle**, Neurology. Medical education, Meharry Medical College, Nashville, TN, 1990. Internship/Residency, Texas Tech University Health Science Center, Lubbock, Texas, 1991/1994.

## OUT OF STATE

**Mayorga, Christian Antonio**, Family Medicine. Medical education, School of Medicine of Nicaragua, 1979. Internship/Residency, Hospital San Vicente, Leon, Nicaragua, 1977/1981. Currently in residency training at University of Tennessee St. Francis Hospital, Memphis, TN.

## STUDENTS

Jodi M. Barboza

Michael Leon Thomas

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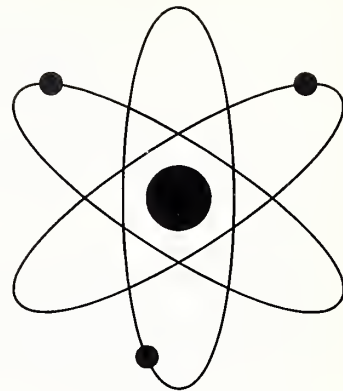


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# Radiological Case of the Month



Steven R. Nokes, M.D.  
John C. Schultz, M.D.  
Thomas W. Koonce, M.D.

## History:

This twenty-one-year-old male presented with headaches. An MR scan of the brain revealed a ring enhancing lesion which proved to be an abscess. His admission chest x-ray and a subsequent CT scan of the chest are shown. The family history includes a grandmother with GI bleeding.



Figure 1A: PA chest x-ray.

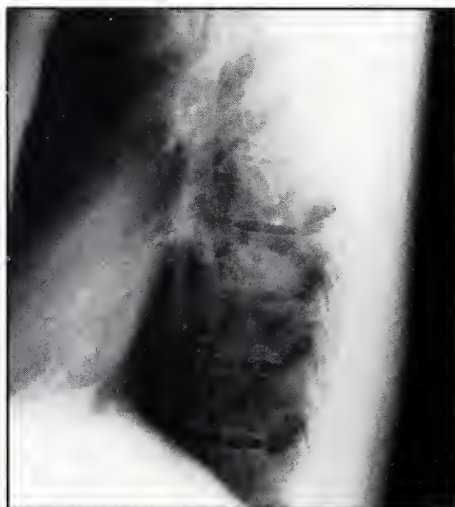


Figure 1B: Lateral chest x-ray.

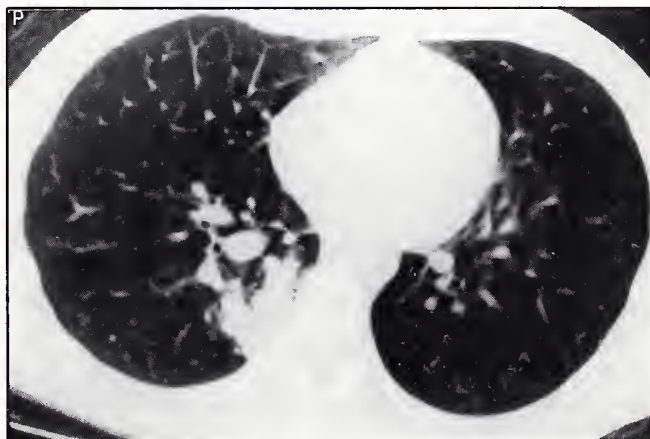


Figure 2: CT scan of the chest at the level of the heart.

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# Osler-Weber-Rendu Disease

## (Pulmonary arteriovenous malformation)

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### Findings:

The PA and lateral chest reveals a 2.5 cm coin lesion in the right lower lobe. The CT scan confirms the lesion and demonstrates the feeding artery and draining vein. A pulmonary angiogram (*figure 3*) confirms the pulmonary arteriovenous malformation and was obtained prior to embolization. Five PAVMs were shown in total. The three largest were successfully treated with angiographic embolization.

### Discussion:

Pulmonary arteriovenous malformations (PAVMs) are commonly associated with Osler-Weber-Rendu disease (hereditary hemorrhage telangiectasia—HHT). HHT is an uncommon, autosomal dominant disorder that results in dilatation of abnormally thin walled venules and capillaries in the brain, lung, nose and GI tract, causing serious morbidity and 10% mortality in affected individuals. PAVMs are a significant cause of morbidity in HHT and may be the leading cause of death. Besides causing cyanosis, dyspnea and fatigue, these low resistance extracardiac right-to-left shunts predispose the patient to stroke and brain abscess because the lung no longer serves as a filter.

The differential diagnosis of a coin lesion is very broad. The CT scan definitively identifies the characteristic feeding artery and draining vein. Recent reports indicate CT is as accurate as pulmonary angiography in this regard. Angiography is necessary prior to embolo therapy to quantify the feeding vessels and search for occult PAVMs. Obliteration of the PAVMs is effective in preventing strokes, but does not decrease the risk of brain abscess. Patients should receive antibiotics for the remainder of their life prior to dental work or cleaning.



Figure 3: AP pulmonary angiogram.

### References:

1. White RI. Pulmonary arteriovenous malformations: How do we diagnose them and why is it important to do so? *Radiology* 1992; 182:633-635.
2. Remy J, Remy-Jardin M, Watinne L, Deffortaines C. Pulmonary arteriovenous malformations: Evaluation with CT of the chest before and after treatment. *Radiology* 1992; 182:809-816.

---

*Editor: Steven R. Nokes, M.D. is affiliated with Radiology Consultants in Little Rock.*

*Contributor: John C. Schultz, M.D. is affiliated with the Little Rock Diagnostic Center.*

*Contributor: Thomas W. Koonce, M.D. is affiliated with Radiology Consultants in Little Rock.*



# **The Arkansas Medical Society Seeks Nominations for the 1995 Shuffield Award**

The Arkansas Medical Society is seeking nominations for the 1995 Shuffield Award which will be presented at the annual meeting in Hot Springs May 4 - 6, 1995.

The Shuffield Award is given each year to recognize lay persons in Arkansas who have done outstanding community work in the health care field. The individual might be a newspaper reporter, television personality, government official, teacher or individual promoting a community or other health related program. The person cannot

be a physician or member of a physician's immediate family.

The nominations may come from the county medical societies or any medical society or alliance member. The deadline for receipt of nominations is Friday, February 28, 1995. Past nominees may be renominated.

If you know someone worthy of this honor, please fill out the form below and return it to the Arkansas Medical Society office.

## **1995 ARKANSAS MEDICAL SOCIETY SHUFFIELD AWARD**

Nominee's name: \_\_\_\_\_

Highest degree nominee has held: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Address of nominee and telephone number: \_\_\_\_\_

Nominee's place of employment: \_\_\_\_\_

Title or occupation: \_\_\_\_\_

Birthplace and year: \_\_\_\_\_

Honors and achievements: \_\_\_\_\_

Membership in civic clubs or professional organizations: \_\_\_\_\_

Please attach a short narrative and a curriculum vitae. (Describe nominee's accomplishments and contributions in the area of health care. Please let us know why this person is worthy of this award.)

Please return form and narrative no later than February 28, 1995 to:

**Arkansas Medical Society  
P.O. Box 5776  
Little Rock, Arkansas 72215  
or FAX: (501) 224-6489**

# Medicine in the News

## UAMS Foundation Fund Receives Grant from Ronald McDonald Children's Charities

The UAMS Foundation Fund recently received a \$7,000 Grant from Ronald McDonald Children's Charities of Arkansas to support the R.F. Ant Anti-Alcohol Abuse Program. The program includes an animated educational video program and related materials to focus on teaching alcohol abuse prevention to kindergarten through fourth grade children throughout the United States. The program also addresses peer support for "non-use" attitudes and behaviors. During the development of these materials, Arkansas children will provide feedback as the program is presented in elementary school classrooms and through other youth-oriented organizations by Dr. Kim Light, professor of pharmacology at the college of pharmacy at UAMS. The grant will cover the production costs for the teachers' program guides.

## Arkansas Has Fourth Highest Rate of Obesity

Arkansas has the fourth highest rate of obesity in the country according to the latest statistics from state Department of Health studies, sponsored by the national Centers for Disease Control. Only Indiana, West Virginia and Mississippi rated worse than Arkansas. As recently as 1991, obesity was less common in Arkansas than in the U.S. as a whole. That year, 23.2 percent of Arkansans were classified as obese, which means they exceeded their ideal weight by 20 percent or more. The national obesity rate was 23.4 percent. By 1993, the latest statistics available, 30.1 percent of adult Arkansans are obese.

## ACS Funds New Cancer Research in Arkansas

The American Cancer Society, Arkansas Division, recently approved four cancer research fellowships and grants totaling \$217,500.

Timothy C. Chambers, Ph.D., assistant professor of biochemistry and molecular biology at UAMS, received a \$102,000 grant for his research on multi-drug resistance.

Jill James, Ph.D., research biologist at the National Center for Toxicological Research in Pine Bluff, was awarded a \$76,000 grant for her research to further the understanding of the mechanisms by which diet and nutritional status can affect a person's susceptibility to cancer.

Jennifer Graham-Moix received an American Cancer Society Clinical Oncology Social Work Traineeship for \$8,000.

UAMS received an Institutional Research Grant

for \$31,500. The funds were divided among the following three research projects:

- "Manipulation of Somatostatin Receptors on Meningiomas for Diagnostic and Therapeutic Purposes" with Ali F. Krist, M.D., as the principal investigator,
- "Sex Steroids, IL-6 and GP130 in Multiple Myeloma" with Medha Munshi, M.D., as primary investigator, and
- "The Role of Transcription Factor NFkB in Aging and Cancer" with Usha Ponnappan, Ph.D., as the principal investigator.

## CDC Grant Enables Toll-Free Number to Assist Physicians

Physicians and their staffs can receive timely answers to in-office testing questions by calling the Commission on Office Laboratory Accreditation (COLA) toll-free number, (800) 298-8044. The toll-free number connects directly to the COLA Customer Service Center, a high-tech phone center professionally staffed

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with medical technologists providing information for office laboratory staff.

This service is made possible through a cooperative agreement with the Centers for Disease Control and Prevention (CDC). The agreement enables COLA to provide a toll-free number to assist physicians in obtaining prompt and precise information about office laboratory-related issues. The number replaces the long distance CLIA (Clinical Laboratory Improvement Amendments of 1988) hotline which was deactivated September 30, 1994. The COLA toll-free number is available throughout the United States, Monday through Friday, 9 a.m. to 5 p.m. (Eastern time).

The toll-free service represents only part of the CDC agreement. Other phases of the agreement will enable COLA to conduct an educational needs assessment and analysis of more than 7,000 office laboratories, develop informational fact sheets for distribution via fax or mail, and develop a database to determine laboratory testing complexity. These projects are in progress.

## AMS Newsmakers

General Surgeon, **Dr. Quin Baber**, of Benton, retired October 26 after practicing 32 years.



*Mimi, Yvonne and Denise Dang of Rogers, who received scholarships from the Benton County Medical Society, pause with their brother Danny who is attending the University of Arkansas at Fayetteville.*

**Mimi, Yvonne and Denise Dang** of Rogers recently received scholarships from the Benton County Medical Society. A \$10,000 gift from the society will be divided equally among all ten Benton County medical students, including the three sisters who are attending UAMS. Mimi and Yvonne are student members of AMS.

### Delta Bans Smoking ASIM Applauds

As of January 1, 1995, smoking has been banned on all Delta Airlines' flights. Although smoking is banned on all domestic flights, Delta is the first American airline to move to smoke-free international trips. The American Society of Internal Medicine recently commended Delta's decision. In a letter to Delta President Ronald Allen, ASIM Executive Vice President Alan R. Nelson, M.D., said the airline's decision is a bold and courageous move that indicates commitment to the health of customers and employees.

### Health Care Access Foundation Update

As of January 1, 1995, the Arkansas Health Care Access Foundation has provided free medical service to 8,553 medically indigent persons, received 16,245 applications and enrolled 33,035 persons. This program has 1,690 volunteer health care providers including medical doctors, dentists, hospitals, home health agencies and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.

Retired physician, **Dr. Gilbert Dean**, of Little Rock, has written a book for his family and friends to share. The book contains short stories from all aspects of his life including his childhood, his days of playing football at Little Rock High School (now Little Rock Central), his two tours of duty in the South Pacific during World War II, his residency at the University of Iowa at Iowa City and his professional career. He spent five years writing the book and plans to give 20 hardbound copies to family and friends.

**Dr. Edward P. Hammons** has been elected chairman of the board for East Arkansas Community College in Forrest City. He has been on the board since 1991 and has taught at the college for 20 years. In 1975, he organized the first Paramedic Program in Arkansas at East Arkansas Community College.

**Dr. Donald Ivy**, an anesthesiologist, has joined the active medical staff of Washington Regional Medical Center in Fayetteville. He is affiliated with Fayetteville Anesthesiology Associates.

**Dr. Charles Mabry**, a general, vascular and thoracic surgeon, has been selected vice chairman of the Committee of Young Surgeons of the American College of Surgeons. Fourteen fellows serve on the committee and are chosen from across the U.S. and Canada to advise the policy and decision-making processes of the college.

Joining the ranks of President Clinton, Elvis Presley and Ralph Nadar, **Dr. Richard Pellegrino**, of Hot Springs, has been named one of the "Ten Outstanding Young Americans" for 1995 by the U.S. Junior Chamber of Commerce. In December 1992, Pellegrino founded the Institute for Neurology and Neuroscience Research. He maintains a private practice in Hot Springs and is on the staff of St. Joseph's Regional Health Center and AMI National Park Medical Center.

**Dr. Glenn Schoettle**, of West Memphis, was honoree in December at the 1994 Heart Gala, the annual fundraiser for the Crittenden County Chapter of the American Heart Association.

President of the American Academy of Family Physicians, **Dr. James Ray Weber**, of Jacksonville, was featured in the *Arkansas Democrat-Gazette's* High Profile section on January 8, 1995.

**Dr. I. Dodd Wilson**, professor and dean of the College of Medicine at UAMS, has been named executive vice chancellor of UAMS. He will oversee several areas on campus and will help guide programs including managed care, fund raising and development.

### Physician's Recognition Award

The Physician's Recognition Award is awarded each month to physicians who have completed acceptable programs of continuing education. The AMS members who were recipients for the month of December 1994 are:

Donald Gene Browning	Little Rock
David Gibbons	Ozark
George Smith	El Dorado



## In Memoriam

### David Elmo Ducker, M.D.

Dr. David Elmo Ducker, of Salem, Arkansas, died Sunday, December 18, 1994. He was 66.

He is survived by his wife, Rhea Ducker; one son, Herschel and Suzanne Ducker, Branson, Missouri; three daughters, Twylla and Wayne Worsham, Salem, Arkansas, Carolyn and Dr. Louis Campos, Agnos, Arkansas, and Letitia and Jude Samson, Austin, Texas; his mother, Edna Mae Ducker, Horseshoe Bend, Arkansas; two brothers, Lyndell Ducker, Calico Rock, Arkansas, and Donald Ducker, Pineville, Arkansas; one sister, Helen King, Pineville, Arkansas; seven grandchildren, Jesse, Aaron and Lynn Worsham, Mamye Ducker, Jessica Barnett, Sarah Campos and Shanti Samson; one great-grandchild, Taylor Moore; many nieces, nephews, other relatives and friends.

### Leeman H. King, M.D.

Dr. Leeman H. King, of Hot Springs, a retired cardiologist, died Thursday, January 12, 1995. He was 80.

Dr. King was a member of the Arkansas Medical Society Fifty Year Club.

He is survived by his wife, Pauline; son, Dean King; grandson, Matthew Thomas King; sister-in-law, Mary Jane Calcote; and one uncle, Jacob King.

### Helen Downie Talbot

Helen Downie Talbot, of Pine Bluff, died Wednesday, January 4, 1995. Widow of Dr. George B. Talbot, she was 81.

She is survived by two sons, George B. Talbot, Jr. of Pine Bluff and Downie Talbot of Memphis; daughter, Nelia Talbot Fletcher of Germantown, Tennessee; sister, Margaret Brown of Mobile, Alabama; and seven grandchildren.





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Nursing and Paramedic CEUs are pending.

Course fees: Physicians \$195; ACEP members \$150;  
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1(501)375-9148

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These physicians along with pharmacies, dentists, home health agencies, hospitals, Department of Health, and Department of Human Services have joined forces to support the AHCAF, Inc. These volunteers are part of a unique effort to provide access to quality health care for low-income Arkansans who do not qualify for government assistance, have no form of health insurance and are living at or below the federal poverty level.

Through continued support from all sectors of the health care community, you are helping us to meet the growing demand for health care for those in need.



**Arkansas Health Care  
Access Foundation, Inc.**

**Thank you! You are making a difference!**



# Things To Come

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## March 4-5

**Liver Disease in Hemophilia: New Directions in Diagnosis, Management and Treatment.** The Westin at Peachtree Plaza, Atlanta, Georgia. For more information, contact the National Hemophilia Foundation at (212) 219-8180.

## March 4-9

**Twenty-second Annual Critical Care Medicine Course.** Marriott Hotel, Oklahoma City, Oklahoma. Sponsored by the University of Oklahoma. For more information, call (405) 271-5904.

## March 5-10

**Coping with Current Issues in Clinical Practice: 17th Annual Winter Psychiatry Conference.** Park City, Utah. Sponsored by the Karl Menninger School of Psychiatry & Mental Health Sciences and the Division of Continuing Education. For more information, call (800) 288-7377.

## March 8-9

**Child & Adolescent Rural Injury Control Conference.** Holiday Inn - Madison West, Middleton, Wisconsin. Hosted by the Children's Safety Network and the National Farm Medicine Center. For more information, call (800) 662-6900.

## March 8-10

**Nuclear Oncology.** Thomas B. Turner Building, Johns Hopkins Medical Institutions, Baltimore, Maryland. Sponsored by Johns Hopkins Medical Institutions. For more information, call (410) 955-2959.

## March 24-25

**Otology Update 1995.** Hyatt Regency Hotel, New Orleans, Louisiana. Sponsored by The Department of Otolaryngology and the Tulane University Medical Center, Office of Continuing Education. For more information, call (504) 588-5466.

## March 31-April 2

**Comprehensive HIV Management Update for Primary Care Physicians.** Palace Hotel in New York City. Developed in cooperation with the American Foundation for AIDS Research, and sponsored by the Center for Bio-Medical Communication. For more information, call (201) 385-8080.

## April 19-22

**Fifteenth Annual National Pediatric Infectious Disease Seminar.** Grand Hyatt Hotel, Washington, D.C. Sponsored by The University of Texas Southwestern Medical Center at Dallas, Eli Lilly and Company and the National Pediatric Infectious Diseases Foundation. For more information, call (317) 578-3075.

## April 22

**Clinical Pharmacology for the Practicing Physician: Current Issues in Drug Therapy.** Hotel InterContinental, New Orleans, Louisiana. Sponsored by the Section of Clinical Pharmacology and the Tulane University Medical Center Office of Continuing Education. For more information, call (504) 588-5466.

## April 28 - 30

**1995 Pediatric Update for Primary Care Physicians.** Westin Canal Place Hotel, New Orleans, Louisiana. Sponsored by the Departments of Pediatrics from Tulane University School of Medicine & Ochsner Medical Institutions, and Tulane Hospital for Children in cooperation with TUMC's Office of Continuing Education. For more information, call (504) 588-5466 or 1-800-588-5300.

## April 28 - 30

**Current Topics in Pathology: Liver, GI, Kidney Biopsy Pathology.** Westin Canal Place Hotel, New Orleans, Louisiana. Sponsored by Tulane University Medical Center, Department of Pathology and the TUMC, Office of Continuing Education. For more information, call (504) 588-5466 or 1-800-588-5300.

## April 28 - May 5

**54th Annual American Occupational Health Conference.** Sands Expo and Convention Center, Las Vegas, Nevada. Co-sponsored by the American College of Occupational and Environmental Medicine and the American Association of Occupational Health Nurses. For more information, call (708) 228-6850.

## May 1-3

**5th Annual New Orleans HIV/AIDS Update for the Primary Care Provider.** Sheraton Hotel, New Orleans, Louisiana. Sponsored by the Delta Region AIDS Education and Training Center, LSU Medical Center Schools of Medicine and Nursing, Tulane University Medical Center and Alton Ochsner Medical Foundation. Endorsed by New Orleans Nurses for AIDS Care. For more information, call (504) 568-3855.

## HIV in Pregnancy

March 7, 1995, 11:15 a.m. to 1:15 p.m., Medical Center of South Arkansas #3, El Dorado. Sponsored by AHEC-South Arkansas and presented by Paul Wendell, M.D. Category I credit: 1.0 hour. No fee.

## 1995 Infectious Diseases Update

March 10, 1995, 12:00 noon & March 11, 1995, 8:00 a.m., Hot Springs. Sponsored by Arkansas Children's Hospital. Category I credit offered: 7.5 hours. Fee: \$135.

## New Drug Update

March 16, 1995, noon to 1:30 p.m., Medical Center of South Arkansas #3, El Dorado. Sponsored by AHEC-South Arkansas and presented by Tom Franks, M.D. Category I credit: 1.0 hour. No fee.

## Critical Care & Emergency Medicine Symposium

March 30-April 1, 1995, 7:00 a.m., Registration & Breakfast, The Arlington Resort Hotel and Spa in Hot Springs. Sponsored by UT of Memphis and presented by Milton D. Deneke, M.D. Category I credit: 11.5 hours. Fee: \$200.

## Genetics in Primary Health Care

April 6, 1995, 8:00 a.m. Registration, Holiday Inn West, Little Rock. Sponsored by UAMS and presented by J. Gerald Quirk, M.D. Category I credit: TBA. Fee: TBA.

## Strategies to Treat Frailty and Functional Dependency in the Elderly

April 12, 1995, 8:00 a.m. Registration, Excelsior Hotel, Little Rock. Sponsored by UAMS and presented by Drs. David Lipschitz & Ronnie Chernoff. Category I credit: TBA. Fee: \$75.00 - \$55.00 (VA Employees).

## 12th Annual W.W. Stead Chest Symposium

April 22-23, 1995, 7:30 a.m. Registration, Hilton Inn, Hot Springs. Sponsored by UAMS College of Medicine and presented by Marcia Erbland, M.D.

## Diabetes Update

April 29, 1995, 8:00 a.m. Registration, Holiday Inn West, Little Rock. Sponsored by UAMS College of Medicine. Category I credit: TBA. Fee: TBA.

## Recurring Education Programs

The following organizations are accredited by the Arkansas Medical Society to sponsor continuing medical education for physicians. The organizations named designate these continuing medical education activities for the credit hours specified in Category I of the Physician's Recognition Award of the American Medical Association.

### FAYETTEVILLE-VA MEDICAL CENTER

General Medical Topics, Thursdays, 12:00 noon, Auditorium, Bldg. 3  
Medical Grand Rounds, Thursdays, 12:00 noon, Conference Room, Bldg. 4

### HARRISON-NORTH ARKANSAS MEDICAL CENTER

Cancer Program, 4th Thursday, 12:00 noon, Conference Room

### LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL

Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium  
Genetics Conference, Wednesdays, 12:00 noon, Sturgis Bldg., room 457  
Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom  
Pediatric Grand Rounds, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium  
Pediatric Neuroscience Conference, 1st Thursday, 8:00 a.m., 2nd Floor Classroom  
Pediatric Pharmacology Conference, 5th Wednesday, 12:00 noon, 2nd Classroom  
Pediatric Research Conference, 1st Thursday, 12:00 noon, 2nd Floor Classroom

### LITTLE ROCK-ST. VINCENT INFIRMARY MEDICAL CENTER

Cancer Conferences, Thursdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Chest Conference, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Sandwich buffet served  
General Surgery Grand Rounds, 1st Thursday, 7:00 a.m. Southwestern Bell/ARKLA Room. Light breakfast provided.  
Interdisciplinary AIDS Conference, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Joint Tumor Conference, 1st Wednesday, 12:00 noon. CARTI Auditorium. Lunch provided.  
Journal Club, Tuesdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.



*Mental Health Conference, 3rd Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.*  
*Urology Grand Rounds, 1st Tuesday, 5:30 p.m., Southwestern Bell/Arkla room. Refreshments provided*

#### **LITTLE ROCK-BAPTIST MEDICAL CENTER**

*Anesthesiology Conference, 3rd Thursday, 7:00 a.m., Conference Room 1*  
*Breast Conference, 3rd Thursday, 7:00 a.m., Conference Room 1*  
*GI Conference, 4th Friday, 11:30 a.m., Conference Room 1*  
*Grand Rounds Conference, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.*  
*Pathology Conference, 1st Tuesday, 3:00 p.m., Pathology Library*  
*Pediatric Grand Rounds, Tuesdays, 12:00 noon, Especially for Women Resource Room, 2nd floor/BMC. Category 1 credit available. Lunch provided.*  
*Pulmonary Conference, Tuesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.*  
*Sleep Case Conference, Fridays, 12:00 noon. Call BMC ext. 1902 for location. Lunch provided.*

#### **MOUNTAIN HOME-BAXTER COUNTY REGIONAL HOSPITAL**

*Lecture Series, 3rd Tuesday, 6:30 p.m., Education Building*  
*Tumor Conference, Tuesdays, 12:00 noon, Carti Boardroom*

#### **NORTH LITTLE ROCK-BAPTIST MEMORIAL HOSPITAL**

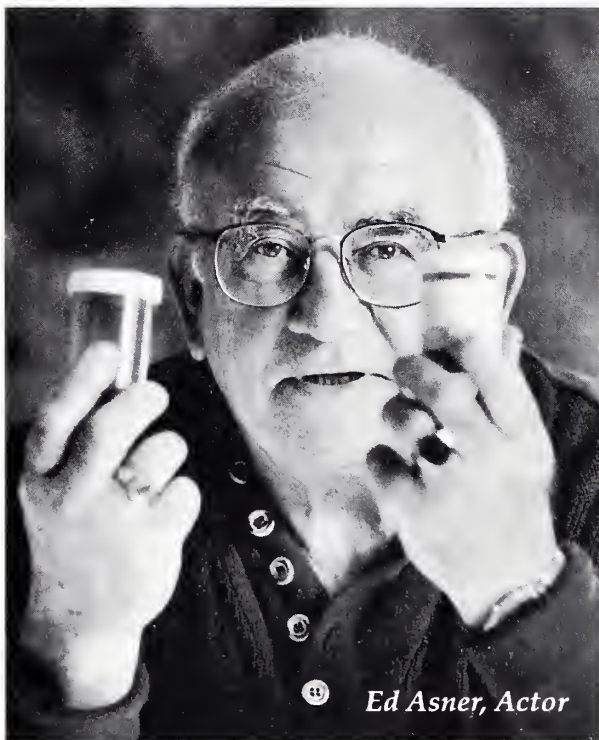
*Chest & Problems Case Conference, 3rd Wednesday, 12:00 noon, Assembly room. Lunch provided.*  
*Grand Rounds & Chest Conference, 1st Monday (3rd, chest), 12:00 noon, Assembly room.*  
*Medicine Conference, 1st Wednesday, 12:00 noon, Assembly room. Lunch provided.*  
*Surgery Conference, 2nd Wednesday, 12:00 noon, Assembly room. Lunch provided.*  
*X-ray Case Conference, 4th Wednesday, 12:00 noon, Assembly room. Lunch provided.*

*As an organization accredited for continuing medical education by the Accreditation Council for Continuing Medical Education, the University of Arkansas for Medical Sciences certifies the following continuing medical education activities meet the criteria for Category I of the Physician's Recognition Award of the American Medical Association.*

#### **LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES**

*ACRC Oncology Forum, Thursdays, 4:00 p.m., UAMS ACRC 2nd Floor Board room, 1.5 credits*  
*Anesthesia Lecture Series, Wednesdays, 4:00 p.m., UAMS Education Bldg., room G/110 A&B*  
*Anesthesia Morbidity & Mortality Conference, Tuesdays, 6:45 a.m.; 2nd & 4th Thursdays, 4:00 p.m., UAMS Education Bldg., room G/110 A&B*  
*Arkansas Blood & Cancer Society Conference, 6th Thursday, 7:30 p.m. Terrace Restaurant, Little Rock*  
*Cardiology Clinical Conference, Mondays, 4:00 p.m., UAMS, room 3S06*  
*Cardiology Graphics Conference, Wednesdays, 12:00 noon, UAMS, room 3S06*  
*CARTI North Tumor Board Cancer Conference, 2nd Wednesday, 12:00 noon, CARTI North, Searcy*  
*Cardiothoracic Surgery Conference, date, time, & location varies*  
*Cardiothoracic Surgery Monthly Journals Club, 4th Saturday, 9:30 a.m., UAMS Surgery Dept. Library, room 2S/28D*  
*Cardiothoracic Surgery Morbidity & Mortality Conference, 2nd Saturday, 9:30 a.m., UAMS Surgery Dept. Library, room 2S/28D*  
*Child Psychiatry Update/Case Conference, 3 Fridays per month, 1:00 p.m., ACH Child Study Center conference room*  
*CME Outreach Program, dates, times & locations vary*  
*Emergency Medicine Didactic Conference 1, Thursdays, 12:00 noon. UAMS Education Bldg., room G/110A&B*  
*Emergency Medicine Didactic Conference 2, Thursdays, 1:00 p.m., UAMS Education Bldg., room G/110A&B*  
*Emergency Medicine Grand Rounds 1, Tuesdays, 3:00 p.m., UAMS Education Bldg., room B/106A&B*  
*Emergency Medicine Grand Rounds 2, Tuesdays, 4:00 p.m., UAMS Education Bldg., room B/106A&B*  
*Endocrinology Case Conference, Fridays, 7:30 a.m., ACRC 3rd floor conference room*  
*Family Practice Grand Rounds, Tuesdays, 12:15 p.m., Family Practice Center, 6th and Elm*  
*Gastroenterology Grand Rounds, Thursdays, 4:00 p.m., Gastroenterology conference room, 3D29*  
*GI/Radiology Conference, Tuesdays, 8:00 a.m., UAMS Radiology conference room, M1/293*  
*Hematology/Oncology Fellow's Forum, Fridays, 8:15 a.m., ACRC Betsy Blass conference room*  
*Interhospital Urology Grand Rounds, 1st Tuesday, 5:30 p.m., St. Vincent Arkla/Bell room*  
*LR Cancer Conference, Wednesdays, 12:00 noon, UAMS ACRC conference room three times a month, CARTI Auditorium once a month*  
*LR Vascular Conference, time & date varies monthly, rotates between UAMS, SVI & BMC*  
*Medicine Grand Rounds, Thursdays, 12:00 noon, UAMS Education Bldg., room G/131A&B*  
*Med/Path Conference, 3rd or 4th Tuesday, 3:00 p.m., UAMS Shorey Bldg., room S/306*  
*Medicine Journal Club, alternate Thursdays, 7:30 a.m., ACC Medicine Clinic conference room*  
*Medicine Research Conference, Wednesdays (except 3rd), 4:30 p.m. UAMS Education Bldg. room B/135*  
*Neurology-Neuropathology Conference, Wednesday's, 4:00 p.m., Room 2E-142 at VAMC*

# Attention: Physicians



Ed Asner, Actor

## Have your patients' medicines had a check-up?

Many of your patients take several different medicines every day. Separately each one works well. But if they take two or more different medicines in combination without checking with you to be sure they work safely together, they can sometimes be harmful...even dangerous.

The next time you prescribe a medicine, ask your patients:

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YES! Please send me free information to use when talking with my patients about their multiple medicine use.

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*A public service message from the National Council on Patient Information and Education (NCPIE) and the U.S. Administration on Aging*



Neurology-Neuradiology Conference, Wednesday's, 5:15 p.m., Radiology Conference Room at UAMS  
 Neuroscience Clinical Grand Rounds, Monday's, 3:00 p.m., Betsy Blass Conference Room, Arkansas Cancer Research Center  
 Neuroscience Conference (Basic), Mondays, 8:00 a.m., UAMS 7D33  
 Neuroscience Conference (Basic & Clinical), Wednesdays, 4:00 p.m., UAMS 7C  
 Neurosurgery Journal Club, 2nd & 4th Thursdays, 8:00 p.m., 2 credit hours  
 Neurosurgical Pathology Conference, Thursdays, 4:00 p.m., VAMC-LR Neuropathology conference room, 2E141  
 OB/GYN Fetal Boards, 2nd Fridays, 8:00 a.m., ACH Sturgis Bldg.  
 OB/GYN Grand Rounds, Wednesdays, 7:45 a.m., UAMS Education Bldg., room G/131B  
 Ophthalmology Problem Case Conference, Thursdays, 4:00 p.m., UAMS Jones Eye Institute, 2 credit hours  
 Ophthalmology Residency Morning Lectures, Mondays, Wednesdays, Fridays, 7:30 a.m., UAMS Jones Eye Institute  
 Orthopaedic Basic Science Conference, Tuesdays, 8:00 a.m., UAMS Education Bldg., room B/135  
 Orthopaedic Bibliography Conference, Tuesdays, 8:30 a.m., UAMS Education Bldg., room B/135, 1.5 credit hours  
 Orthopaedic Fracture Conference, Tuesdays, 7:30 a.m., UAMS Education Bldg., room B/135  
 Orthopaedic Grand Rounds, Tuesdays, 10:00 a.m., UAMS Education Bldg., room B/135  
 Pathology Autopsy Conference, Wednesdays, 12:00 noon, VAMC-LR Morgue  
 Psychiatry Grand Rounds, Fridays, 11:00 a.m., UAMS Child Study Center Auditorium  
 Surgery Basic Sciences Conference, 1st Saturday, 7:30 a.m., ACRC 2nd floor conference room  
 Surgery Grand Rounds, Saturdays, 8:30 a.m., ACRC 2nd floor conference room  
 Surgery Morbidity & Mortality Conference, Saturdays, 9:30 a.m., ACRC 2nd floor conference room  
 Surgery Resident Case Conference, Saturdays (except 1st), 7:30 a.m., ACRC 2nd floor conference room  
 Trauma Morbidity & Mortality Conference, date & time varies monthly, ACRC 2nd floor conference room  
 Urology Adult Subject Oriented Conference, once monthly, 5:00 p.m., VAMC-LR, 4D  
 Urology Basic Sciences Conference, 2nd Tuesdays, 5:00 p.m., VAMC-LR, 4D resident office  
 Urology Clinical Didactic Conference, 3rd Tuesday, 5:00 p.m., VAMC-LR, 4D  
 Urology Formal Teaching (Grand) Rounds, once or twice monthly, 5:00 p.m., VAMC-LR, 4D  
 Urology Journal Club, once a month, 5:00 p.m., VAMC-LR, 4D  
 Urology Morbidity & Mortality Conference, once monthly, 5:00 p.m., VAMC-LR, 4D  
 Urology Pathology Conference, 4th Thursday, 5:00 p.m., VAMC-LR, 4D  
 Urology Pediatric Conference, once monthly, 5:00 p.m., ACH Sturgis Bldg., Clinic 2  
 Urology Pre-op/Didactic Conference, Mondays, 5:00 p.m., VAMC-LR, 4D  
 Urology Radiology Conference, 1st Thursday, 5:00 p.m., UAMS, Radiology Department  
 Urology Teaching Conference, Wednesdays, 5:00 p.m., VAMC-LR, 4D  
 Urology VA Teaching Rounds, every Friday, 7:30 a.m., VAMC-LR, 4D  
 Uro-radiology Conference (Urologic Imaging), 1st Tuesdays, 5:00 p.m., UAMS Radiology conference room  
 VA Chest Conference (combined Surgical/Medical Chest Conference), Mondays, 12:15 p.m., VAMC-LR, room 2D109  
 VA Diagnostic Imaging Conference, Monday-Thursday, 8:00 a.m., VAMC-LR Nuclear Medicine conference room, room 1D173  
 VA GREEC/Geriatric Research Conference, Tuesdays, 4:00 p.m., VAMC-LR, room 2D109  
 VA Hematology/Oncology Conference, Thursdays, 8:15 a.m., VAMC-LR Pathology conference room 2E142  
 VA Lung Cancer Conference, Thursdays, 3:00 p.m., VAMC-LR, room 2E142  
 VA Medical Service Teaching Conference, Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68 room 130  
 VA Medicine-Pathology Conference, Tuesday, 2:00 p.m., VAMC-LR, room 2D109  
 VA Medicine Resident's Clinical Case Conference, Fridays, 12:00 noon, VAMC-LR, room 2D08  
 VA Physical Medicine & Rehab Grand Rounds, 4th Friday, 11:30 a.m., VAMC-NLR Bldg. 68, room 118 or Baptist Rehab Institute  
 VA Surgery Grand Rounds, Thursdays, 12:45 p.m., VAMC-LR, room 2D109, 1.25 credit hours  
 VA Topics in Rehabilitation Medicine Conference, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR Bldg. 68, room 118  
 VA Weekly Cancer Conference, Monday, 3:00 p.m., VAMC-LR, room 2E-142  
 White County Memorial Hospital Medical Staff Program, once monthly, dates & times vary, White County Memorial Hospital, Searcy

#### EL DORADO-AHEC

Behavioral Sciences Conference, 1st & 4th Friday, 12:30 p.m., AHEC - South Arkansas  
 Chest Conference, 3rd Wednesday, 12:30 p.m., Warner Brown Hospital  
 Dermatology Conference, 1st Tuesdays and 1st Thursdays, AHEC - South Arkansas  
 GYN Conference, 2nd Friday, 12:30 p.m., AHEC-South Arkansas  
 Internal Medicine Conference, 1st, 2nd & 4th Wednesday, 12:30 p.m., AHEC-South Arkansas  
 Noon Lecture Series, 2nd & 4th Thursday, 12:00 noon, AHEC - South Arkansas. Lunch provided.  
 Pathology Conference, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas  
 Pediatric Conference, 3rd Friday, 12:30 p.m., AHEC - South Arkansas  
 Pediatric Case Presentation, 3rd Tuesday, 3rd Friday, AHEC - South Arkansas  
 Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., AHEC - South Arkansas (Interactive video)  
 Pathology Conference, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas

*Obstetrics-Gynecology Conference*, 4th Thursday, 12:30 p.m., AHEC - South Arkansas  
*Surgical Conference*, 1st, 2nd & 3rd Monday, 12:30 p.m., AHEC - South Arkansas  
*Tumor Clinic*, 4th Tuesday, 12:30 p.m., AHEC - South Arkansas

#### **FAYETTEVILLE-AHEC NORTHWEST**

*AHEC Teaching Conferences*, Tuesdays & Wednesdays, 12:00 noon, Washington Regional Medical Center  
*AHEC Teaching Conferences*, Fridays, 12:00 noon, Washington Regional Medical Center  
*AHEC Teaching Conferences*, Thursdays, 7:30 a.m., Washington Regional Medical Center  
*Medical/Surgical Conference Series*, 4th Tuesday, 12:30, Bates Medical Center, Bentonville  
*Primary Care Conferences*, 1st & 3rd Mondays, 12:00, every Tuesday 7:30 a.m., Washington Regional Medical Center

#### **FORT SMITH-AHEC**

*Gastroenterology Conference*, 3rd Tuesday every other month, 7:00 a.m., St. Edward Mercy Medical Center  
*Neuroradiology Conference*, 3rd Wednesday, 12:00 noon, St. Edward Mercy Medical Center  
*Neuroradiology Conference*, 1st Tuesday, 11:30 a.m., Sparks Regional Medical Center  
*Sparks Tumor Conference*, Thursdays, 12:00 noon, Sparks Regional Medical Center  
*Tumor Conference*, Mondays, 12:00 noon, St. Edward Mercy Medical Center

#### **JONESBORO-AHEC NORTHEAST**

*AHEC Lecture Series*, 1st & 3rd Tuesday, 12:00 noon, Stroud Hall, St. Bernard's Regional Medical Center. Lunch provided.  
*Arkansas Methodist Hospital CME Conference*, 7:30 a.m., Hospital Cafeteria, Arkansas Methodist Hospital, Paragould  
*Chest Conference*, 2nd Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Citywide Cardiology Conference*, 3rd Thursday, 7:30 p.m., Jonesboro Holiday Inn  
*Clinical Faculty Conference*, 5th Tuesday, St. Bernard's Regional Medical Center, Dietary Conference Room, lunch provided  
*Craighead/Poinsett Medical Society*, 1st Tuesday, 7:00 p.m. Jonesboro Holiday Inn  
*Independence County Medical Society*, 2nd Tuesday, 7:30 p.m., Batesville Country Club, Batesville  
*Interesting Case Conference*, 4th Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Jackson County Medical Society*, 3rd Thursday, 7:00 p.m., Newport Country Club, Newport  
*Kennett CME Conference*, 3rd Monday, 12:00 noon, Twin Rivers Hospital Cafeteria, Kennett, MO  
*Methodist Hospital of Jonesboro CME Conference*, 2nd Tuesday, 7:00 p.m., Cafeteria, Methodist Hospital of Jonesboro  
*Neuroradiology Conference*, 3rd Friday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Orthopedic Case Conference*, June 23, 7:30 a.m., Board Room, Northeast Arkansas Rehabilitation Hospital.  
*Perinatal Conference*, 2nd Wednesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Pocahontas CME Conference*, 3rd Wednesday, 12:00 noon & 7:30 p.m., Randolph County Medical Center Boardroom  
*Tumor Conference*, Thursdays, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Walnut Ridge CME Conference*, 3rd & last Tuesday, 12:00 noon, Lawrence Memorial Hospital Cafeteria  
*White River CME Conference*, 3rd Thursday, 12:00 noon, White River Medical Center Hospital Boardroom

#### **PINE BLUFF-AHEC**

*Behavioral Science Conference*, 1st & 3rd Thursday, 12:00 noon, Jefferson Regional Medical Center  
*Chest Conference*, 2nd & 4th Friday, 12:00 noon, Jefferson Regional Medical Center  
*Family Practice Conference*, 1st & 4th Tuesday, 12:00 noon, Jefferson Regional Medical Center  
*Geriatrics Conference*, 3rd Friday, 12:00 noon, Jefferson Regional Medical Center  
*Internal Medicine Conference*, 2nd & 4th Wednesday, 12:00 noon, Jefferson Regional Medical Center  
*Obstetrics/Gynecology Conference*, 2nd Tuesday, 12:00 noon, Jefferson Regional Medical Center  
*Orthopedic Case Conference*, 2nd & 4th Thursday, 12:00 noon, Jefferson Regional Medical Center  
*Pediatric Conference*, 3rd Wednesday, 12:00 noon, Jefferson Regional Medical Center  
*Radiology Conference*, 3rd Tuesday, 12:00 noon, Jefferson Regional Medical Center  
*Southeast Arkansas Medical Lecture Series*, 4th Tuesday, 6:30 p.m., Pine Bluff County Club. Dinner meeting.  
*Surgery Conference*, 1st Friday, 12:00 noon, Jefferson Regional Medical Center  
*Tumor Conference*, 1st Wednesday, 12:00 noon, Jefferson Regional Medical Center

#### **TEXARKANA-AHEC SOUTHWEST**

*Chest Conference*, every other 3rd Wednesday, 12:30 p.m., St. Michael Hospital  
*Neuro-Radiology Conference*, 2nd & 4th Tuesday, 12:00 noon, Wadley Regional Medical Center  
*Residency Noon Conference*, Mondays through Thursdays, 12:00 p.m., AHEC-Southwest Family Practice Clinic  
*Tumor Board*, Fridays, except 5th Friday, 12:00 noon, Wadley Regional Medical Center & St. Michael Hospital  
*Tumor Conference*, every 5th Friday, 12:00 noon alternates between Wadley Regional Medical Center & St. Michael Hospital







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### MANUSCRIPT STYLE

Author information should include titles, degrees, and any hospital or university appointments of the author(s). All scientific manuscripts must include an abstract of not more than 100 words. The abstract is a factual summary of the work and precedes the article. Manuscripts should be typewritten, double-spaced, and have generous margins. Subheads are strongly encouraged. The original and one copy should be submitted. Pages should be numbered. Manuscripts are not returned; however, original photographs or drawings will be returned upon request after publication. Manuscripts should be no longer than ten typewritten pages. Exceptions will be made only under most unusual circumstances.

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References should be limited to ten; if more than ten are listed, the author(s) may designate the ten most significant to be printed and readers will be referred to the author(s) for the complete list. References must contain, in the order given: name of author(s), title of article, name of periodicals with volume, page, month and year. References should be numbered consecutively in the order in which they appear in the text. Authors are responsible for reference accuracy.

### ILLUSTRATIONS

Illustrations should be professionally drawn and/or photographed. Glossy black and white photos are preferred. They should not be mounted and should have the name of the author(s) and figure number penciled lightly on the back. An arrow should indicate the top of the illustration. In photographs in which there is any possibility of personal identification, an acceptable legal release must accompany the material. Up to four illustrations will be accepted at no charge to the author(s). If more than four are necessary, it is understood that the author(s) will be responsible for the reproduction costs.

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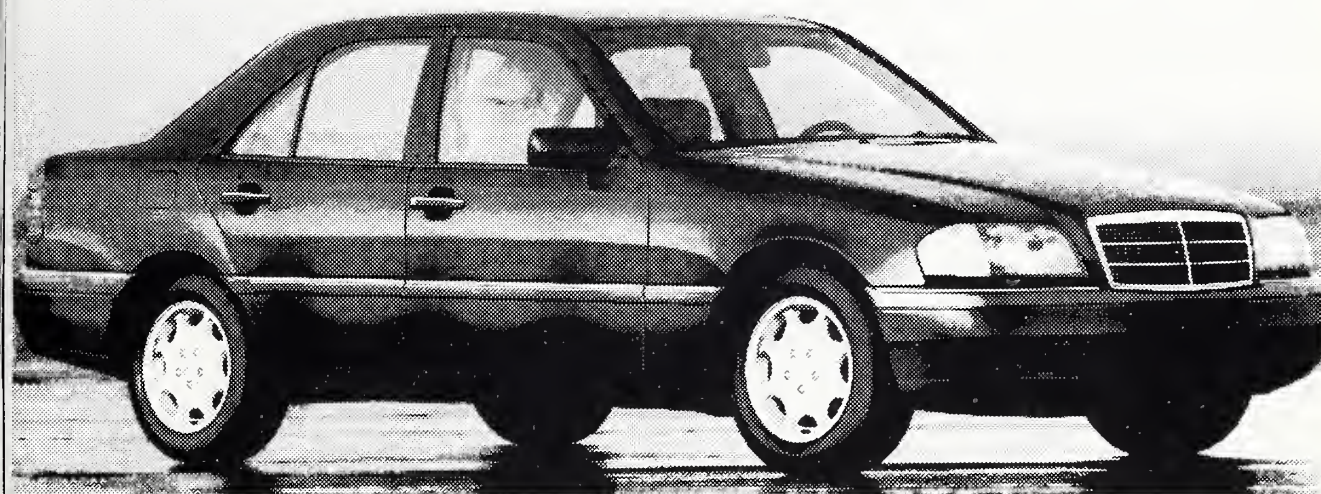
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# "Press [2] To Dictate..."

George Heymont\*

*Why do so few people understand what a medical transcriptionist really does? Because medical transcription, which is frequently performed in a home office or remote location, is an extremely solitary profession which relies on highly-specialized language and interpretive skills. Many doctors still think of MTs as "those ladies in the basement of the hospital who sit there typing all day." But with hospitals farming out the bulk of their dictation to transcription agencies in a desperate attempt to cut back on benefitted employees, a physician's words may be transcribed hundreds or thousands of miles from the patient's bed.*

*Back in medical school — when you were filled with dreams of healing the sick — no one ever told you about the endless hours you would spend dictating patient reports and dealing with mountains of paperwork. The hard truth is that most physicians are drowning in paperwork as third-party insurers continue to demand increased documentation before authorizing payment.*

*The demands for increased documentation are not going to go away. Nor is the pile of charts sitting in front of you. So, even though you're exhausted, you sit down and begin to dictate. How do your words end up in print? They pass through the mind of a language specialist who makes what you said look a lot better than what you really said.*

Although medical transcriptionists (MTs) are often instructed to transcribe a doctor's words verbatim, a lot of careful editing gets done on the fly. Most MTs have heard doctors invent words and dictate the names of medications which do not exist. MTs frequently listen to doctors who stutter, lisp, or talk with a whistling "S." In order to produce a legible and coherent patient record, MTs must frequently untangle the botched dictation of physicians who are

\* George Heymont is co-founder of San Francisco's *Alert & Oriented Medical Transcription Services*. His book, *Dictation Therapy For Doctors*, will be published this year by Galen Press, Ltd.

A version of this article first appeared in the September 1994 issue of *San Francisco Medicine* and was reprinted in the November-December 1994 issue of the *Journal of the American Association for Medical Transcription*. It is reprinted here with the author's permission.

overworked, exhausted, on the run, and who absolutely hate to dictate.

A good transcriptionist will go a great distance to help a doctor who has a language problem (we've struggled with every accent imaginable). But without an alert MT at the keyboard, a patient's future care can be severely jeopardized. With illiteracy on the rise in America, transcribing medical dictation is definitely not a task which should be entrusted to a physician's babysitter or someone in the office "who can type." Why not? Minus a good MT's

interpretive skills a malpractice suit could be lost in court on a mere technicality.

Many people wonder why professional MTs do not feel threatened by voice recognition software. The answer is simple: They've listened to hundreds of doctors who — although they may be brilliant surgeons — are extremely clumsy at putting their thoughts down on paper. They've already had to fix too many sentences like the following:

*She was found by a boarder who lives in her home unconscious in the bathroom.*

*The patient was then treated with a split-thickness shift graft.*

*The patient is a 26-year-old mother of seven who apparently was in the operating room for some reason but fell asleep when it was discovered that she was*



*pregnant at another hospital.*

*The patient also underwent a left third foot metatarsal head resection.*

*He shows involvement of his left arm and left leg, which was absent while he was admitted to the rehabilitation unit.*

*The patient arrived with death sitting on her shoulder.*

*The patient states that he had a similar episode earlier in the morning prior to admission upon walking with shoes off, spontaneously with rest.*

*The patient is alert and cooperative although asleep.*

Several months ago I listened to one exhausted physician state "What am I trying to say? I don't know what I'm trying to say. You know what I'm trying to say. Why don't you just put it in?"

Guess what, folks—MTs can't do that. We can leave lots of blank spaces when we can't find the correct spelling of a medication that never hit the market. And we can try to point out that your patient with the fasting pH of 0.1 might be a car battery. But when push comes to shove there are legal and professional restraints in place to prevent the transcriptionist from playing doctor. MTs still have to deliver some semblance of what the dictating physician said. The quality of our work is totally dependent on the raw material which reaches our ears.

And at a certain point, the buck stops with the doctor, not the transcriptionist.

---

*Many doctors accelerate their dictation when they reach the routine or boring parts of a report. Some will rattle off a patient's laboratory values and physical examination at a speed that is almost indecipherable.*

---

What can you do to improve your dictation? Think of the acronym **DAMS** and then pay attention to the four critical parts of the dictation/transcription cycle: **Data**, **Acoustics**, **Macros** and **Speech**.

First, let's look at **Data**. A favorite cartoon among transcriptionists shows a physician's tombstone with an inscription that reads: "He never spelled the patient's name." MTs need clear and concise spellings of patient names and nonstandard drugs. Any information that needs to appear in the report (patient numbers, drug dosages, etc.) must be clearly dictated. Asking a transcriptionist to type a letter to someone whose address you don't know simply will not do.

The transcriptionist does not have access to that information and is only working "in the moment" of listening to your dictation.

What about **Acoustics**? Because doctors often forget that someone else must be able to understand their dictation, they ignore the effects of dictating in an acoustically unfriendly environment. Whether you use a hand-held recording device or a telephone, any noise which competes with your voice can obliterate your dictation. To make sure your work is transcribed accurately, follow these basic rules:

- Do not dictate near noisy machinery.
- Do not dictate next to barking dogs or squawking parrots (don't laugh, it's been done).
- Do not place your beeper next to the telephone.
- Do not dictate at home while trying to care for an infant or obstreperous child.
- Do not try to relax while working late by dictating as you listen to Luciano Pavarotti or your favorite rock musician.
- Do not dictate while announcements are being made over a hospital's public address system.
- Do not try to dictate while carrying on a conversation with nearby nurses and doctors.
- Do not try to eat and dictate at the same time.

The third category, **Macros**, involves a computer function which is totally hidden from the dictating physician. Most transcriptionists will start a report by launching a macro in their word processing program which initiates a series of pre-programmed events. Such macros require the MT to insert certain bits of data (patient name, patient number, admitting diagnosis, etc.) in the exact same order each time they begin transcribing a new report. Changing the order in which you deliver the information for various data fields (patient name, patient number, date of surgery, etc.) can wreak havoc on a carefully-programmed sequence of computerized events. Ask your medical records department or transcription agency for an outline or script which will show you the exact order in which information needs to be delivered for the reports you dictate on a regular basis.

Last, but not least: **Speech**. Stop mumbling!! Be aware that if you keep changing the distance between your lips and the mouthpiece, you can create a zoom effect which makes certain parts of your dictation inaudible. Speak directly into the telephone. Do not hold the mouthpiece up near your forehead while you're reading charts and do not try to dictate using a speakerphone.

Most importantly, pay attention to the speed of your dictation. Many doctors accelerate their dictation when they reach the routine or boring parts of a report. Some will rattle off a patient's laboratory values and physical examination at a speed that is almost indecipherable. There is also a natural tendency

to let your voice drop as you concentrate on reading statistics (or if you are trying to maintain some sense of privacy while dictating). The faster, and softer, you speak, the more likely you are to swallow certain sounds and syllables.

The bottom line is that if your dictation cannot be heard your words will not appear correctly in print. Although you may be in a rush to finish dictating, your haste makes it infinitely harder to transcribe.

And don't kid yourself: Transcriptionists can grow to resent a sloppy dictator so much that they will occasionally let his errors speak for themselves. With malpractice attorneys eager to jump on the slightest mistake in a patient's record, the proper use of medical terminology in one's chart notes and professional correspondence takes on a weightier significance than ever before.

The safest and surest way to make sure your dictation is transcribed accurately is to remember that the person on the other end of the line — no matter how much you hate to dictate — must be able to understand what you are saying and transform it into a coherent document. The simplest way to ensure top-quality transcription is to make an extra effort to strengthen your own dictation skills. It's like learning how to floss — once you get used to doing it correctly, it becomes a simple, routine and very cost-effective task which can save you a lot of grief further down the line! ■



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# Refractive Surgery

F. Hampton Roy, M.D.

**R**efractive surgery is a term for several procedures which reduce or eliminate vision abnormalities, such as myopia, hyperopia and astigmatism.

The first attempts to alter vision surgically came in the late 1800's, but evolved into its modern form in Russia in the 1960's and 1970's.<sup>3</sup> During the past 15 years, techniques, equipment and outcomes have improved.<sup>4</sup>

Since the late 1970's, over a million and one-half refractive surgeries have been performed. Advances in technology and surgical procedures have now made refractive surgery highly predictable.

Radial keratotomy, which is a procedure in which partial-thickness radial incisions are made in the paracentral and peripheral cornea using a diamond-bladed micrometer knife, is the most widely used refractive surgical procedure to correct myopia.<sup>2</sup>

(Figure 1) Radial keratotomy is most effective when treating low to moderate levels of myopia.

A recent study (PERK) published in "Archives of Ophthalmology" October 1994, found that 53% of radial keratotomy patients had 20/20 vision and 85% of the patients had at least 20/40 vision without correction.<sup>1</sup> A shift of the refractive error in the hyperopic direction was documented in this study and was found to continue during the entire 10 years after surgery.<sup>1</sup>

Astigmatic keratotomy is a modified form of radial keratotomy used to correct astigmatism. This is accomplished by making several incisions in the steepest part of the cornea, causing it to relax and become more rounded. Astigmatic keratotomy is often performed in combination with other refractive procedures.

*Since the late 1970's, over a million and one-half refractive surgeries have been performed. Advances in technology and surgical procedures have now made refractive surgery highly predictable.*

Lamellar keratoplasty is a surgical procedure which utilizes an automated microkeratome to reshape the cornea. To treat myopia, a thin layer of the cornea is dissected with the microkeratome. A precise amount of corneal tissue according to the amount of myopia is then removed from the center of the cornea. The cap is then folded back into place without the need for sutures. Removal of this center tissue causes the cornea to flatten and reduces the myopia (Figure 2).

To treat hyperopia, a thicker layer of the cornea is dissected with the microkeratome. Pressure inside the eye causes the cornea to steepen and reduce the hyperopia. Lamellar keratoplasty is most effective for higher levels of myopia and is the only treatment currently available for hyperopia in the United States.<sup>5</sup>

The Holmium Laser to shrink the collagen fibers of the peripheral cornea appears promising for

lower degrees of hyperopia. This technology is currently being used in Canada and Europe with excellent results.

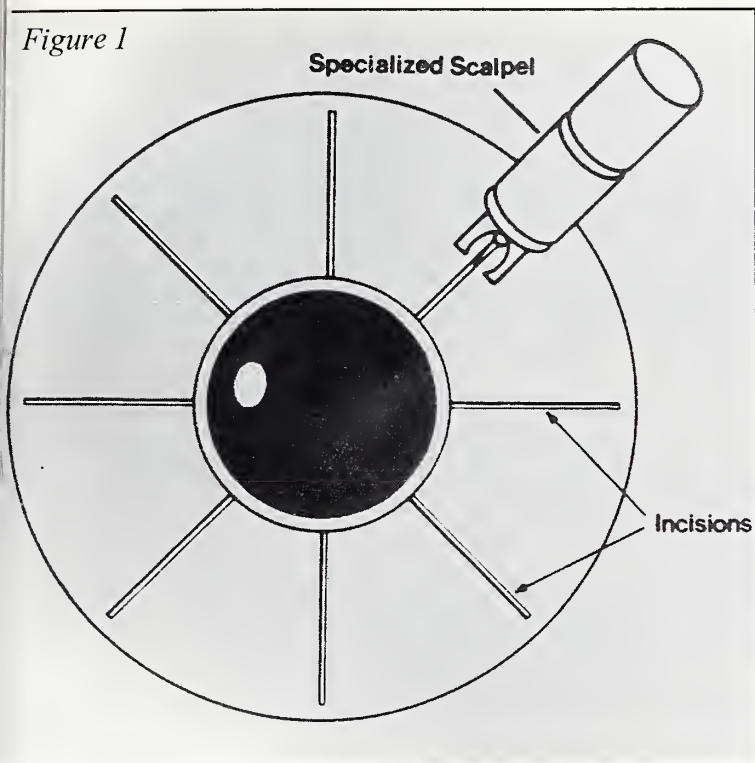
Currently, excimer laser for the treatment of myopia is under investigation in the United States by the FDA. The excimer laser sculpts the cornea to improve vision in a process called photorefractive keratectomy (PRK) (Figure 3). PRK is used in Canada, Europe and South America extensively with excellent results.<sup>6</sup> Some studies show that 94% of eyes treated with excimer laser are improved to at least 20/40 without any optical correction.

Investigators have been waiting years for FDA action on the devices which have been under development since 1986. Approval is anticipated in 1995.<sup>7,8</sup> Some patients from the United States are electing to go to Canada or the Cayman Islands now for PRK because they prefer a "touchless" (no blade) procedure.

\* F. Hampton Roy, M.D., is with the Arkansas Cataract Center, P.A., and Associate Clinical Professor of Ophthalmology at the University of Arkansas School of Medicine.



Figure 1



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Figure 2

## Automated Lamellar Keratoplasty

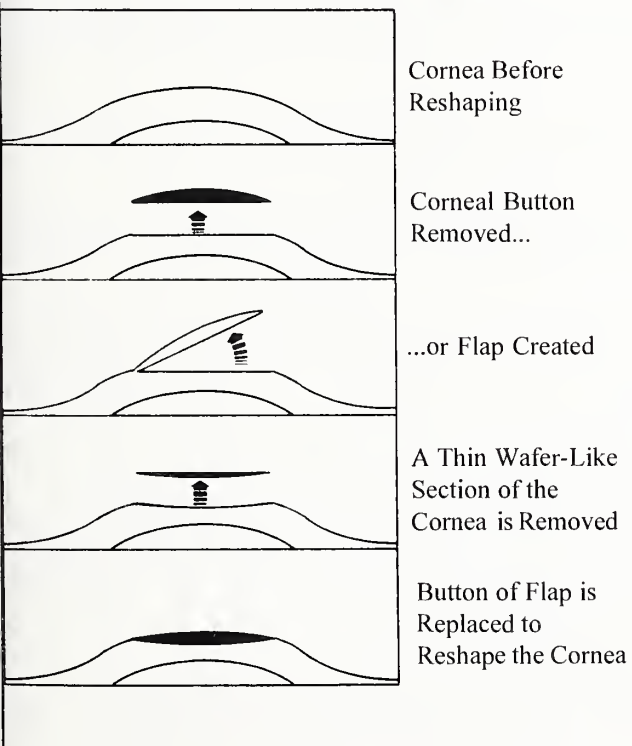
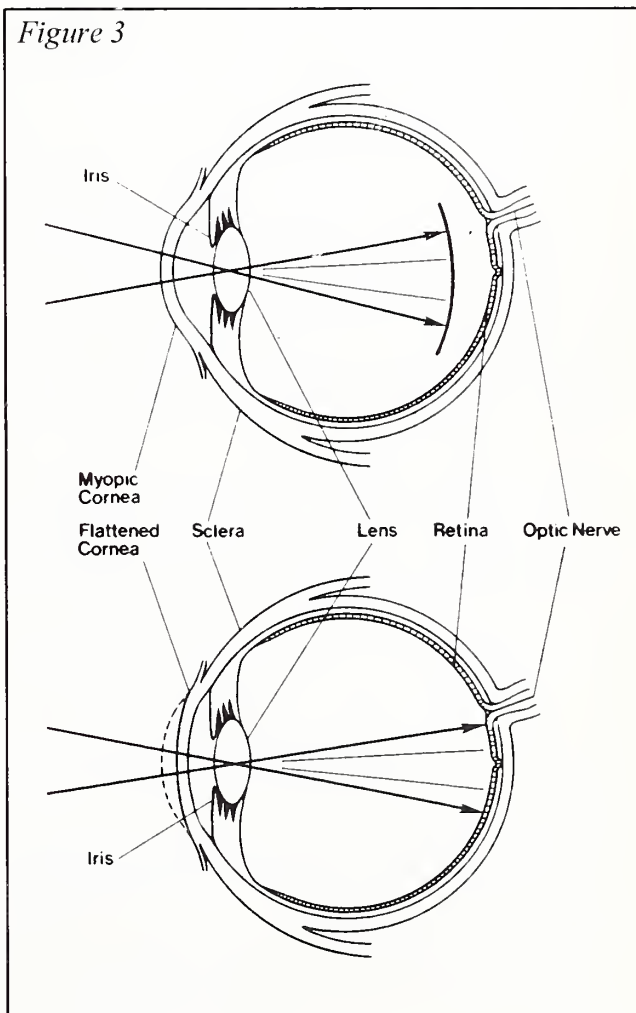
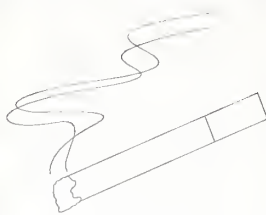


Figure 3






# Facts and Stats on Tobacco and Smoking


## MORTALITY AND MORBIDITY


 "Smoking kills 434,000 Americans each year."


(Cover letters to the President of the US Senate and to the Speaker of the US House of Representatives from Donna E. Shalala, The US Secretary of Health and Human Services.)


From *Preventing Tobacco Use Among Young People: A Report of the Surgeon General*. US Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1994.

 Worldwide, someone dies every 10 seconds due to the effects of smoking (based on World Health Organization's estimate of 3 million deaths worldwide per year).

 About half of all regular cigarette smokers will eventually be killed by their habit.


 In all developed countries there were approximately 2 million total annual deaths from smoking worldwide in 1990. Among those between the ages 35-69, there were approximately 1 million deaths worldwide in 1990 in all developed countries. Between the ages of 35-69 the mean number of years lost per death from smoking is 22 years (for 1995 projections based on 2 million estimated deaths per year from smoking in developed countries).


 Peto et al estimate that between the years 1950 - 2000, approximately 50 million out of an estimated total 260 million male deaths and 10 million out of a total 240 million female deaths (60 million out of 500 million deaths overall for both sexes) in developed countries worldwide could be attributed to smoking.

 In a 40-year study of British doctors, only 50% of those studied who were heavy smokers (25+ per day) survived to age 70 compared to 80% of those who have never smoked.


From Peto R, Lopez AD, Boreham J, Thun M, and Heath C, Jr. *Mortality From Smoking in Developed Countries 1950-2000: Indirect Estimates from National Vital Statistics*. Sponsored by the Imperial Cancer Research Fund (UK) and the World Health Organization. Oxford, UK: Oxford University Press; 1994.


Information provided by the American College of Chest Physicians


 Smoking accounts for 30% of all cancer deaths in the United States. Overall, smokers have a twice as high risk of dying from cancer as nonsmokers. Smoking is responsible for more than 85% of all lung cancers.


 Cigarette smoking is the most preventable cause of morbidity and premature mortality in the United States. (Former Surgeon General C. Everett Koop)


From *N Engl J Med*, March 31, 1994: 907-912.

 There are 24 diseases that are linked to and increased by smoking, with ischemic heart disease (6,438) and stroke (1,025), cerebral thrombosis (956), lung cancer (893), pneumonia (864), myocardial degeneration (841), and cerebral hemorrhage (607) having the highest reported number of deaths related to smoking (in descending order) in a 40-year study out of 15,177 total deaths related to smoking and out of a grand total of 20,523 deaths.

 Approximately 3,000 lung cancer deaths among nonsmokers were attributed to environmental tobacco smoke.


 There are approximately 434,000 premature deaths in the US from tobacco use.


 One in three smokers will die from a tobacco-related illness or condition (almost 25% of total US deaths).


 Exposure to environmental tobacco smoke may kill as many as 53,000 Americans annually. Environmental tobacco smoke causes 150,000-300,000 cases of bronchitis and pneumonia each year, and worsens asthma in up to 1 million children annually.


From Houston TP, ed. *Tobacco Use: An American Crisis—Final Conference Report and Recommendations From America's Health Community—Proceedings from the Washington, DC; January 9-12, 1993 Conference* [Cosponsored by the American Medical Association, the Centers for Disease Control and Prevention, the City of Hope National Medical Center, the Coalition on Smoking OR Health (the American Cancer Society, the American Heart Association, and the American Lung Association), the Memorial Sloan-Kettering Cancer Center, and the University of Texas M.D. Anderson Cancer Center].




 Tobacco is responsible for nearly 1 in 5 deaths in the United States.


 "According to the World Health Organization, approximately 3 million people die worldwide each year as a result of smoking. Smokers lose an average of 15 years of life."


 Risks of dying of lung cancer are 22 times higher for male smokers and 12 times higher for female smokers compared with those who have never smoked.


 Smoking has been associated with cancers of the mouth, pharynx, larynx, esophagus, pancreas, uterus, cervix, kidneys, and bladder. Smoking is a major cause of heart disease, and is associated with conditions ranging from colds to gastric ulcers to chronic bronchitis, emphysema, and cerebrovascular disease.


From American Cancer Society *Statistics-Cancer Facts & Figures 1994*.

 "At least 14.2 million Americans are estimated to suffer from chronic obstructive pulmonary disease (COPD), the fourth-ranking cause of death."


 "Cigarette smoking accounts for 82 percent of COPD deaths; a smoker is ten times more likely than a nonsmoker to die of COPD. There were more than 85,000 deaths from all forms of COPD in 1991, and COPD ranks fourth among causes of death in our country."

 "The number one cause of lung cancer is cigarette smoking; it is responsible for an estimated 87 percent of lung cancer cases, or seven out of eight. Tobacco's impact on the lungs does not occur overnight. It takes years, even decades."


 "Smoking is directly responsible for 87 percent of lung cancer cases. Smoking causes most cases of emphysema and chronic bronchitis. Smoking is also a major factor in coronary heart disease and stroke; may be causally related to malignancies in other parts of the body; and has been linked to a variety of other conditions and disorders, including slowed healing of wounds, infertility, peptic ulcer disease, and ectopic pregnancy."


 "Smoking in pregnancy accounts for an estimated 20 to 30 percent of low-birthweight babies, up to 14 percent of preterm deliveries, and some 10 percent of all infant deaths. One in ten preterm infants suffers from respiratory distress syndrome."

From American Lung Association—*Lung Disease Data 1994* (p. 4-6).

 "Considerable evidence indicates that the health problems associated with smoking are a function of the duration (years) and the intensity (amount) of use.


The younger one begins to smoke, the more likely one is to be a current smoker as an adult. Earlier onset of cigarette smoking and smokeless tobacco use provides more life-years to use tobacco and thereby increases the potential duration of use and the risk of a range of more serious health consequences. Earlier onset is also associated with heavier use; those who begin to use tobacco as younger adolescents are among the heaviest users in adolescence and adulthood. Heavier users are more likely to experience tobacco-related health problems and are the least likely to quit smoking cigarettes or using smokeless tobacco."

 "Cigarette smoking during childhood and adolescence produces significant health problems among young people, including cough and phlegm production, an increased number or severity of respiratory illnesses, decreased physical fitness, an unfavorable lipid profile, and potential retardation in the rate of lung growth and the level of maximum lung function."


 Smokeless tobacco use by adolescents is associated with early indicators of periodontal degeneration and with lesions in the oral soft tissue. Adolescent smokeless tobacco users are more likely than nonusers to become cigarette smokers."


From *Preventing Tobacco Use Among Young People: A Report of the Surgeon General*. US Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1994.


## WHO SMOKES AND HOW MUCH?

 Approximately 48 million persons age 18 or over in the United States smoke, with approximately 24 billion packages of cigarettes purchased annually.

From MMWR 1994; 43:469-472.

 "Smoking prevalence among adolescents declined sharply in the 1970s, but the decline slowed significantly in the 1980s. At least 3.1 million adolescents and 25 percent of 17- and 18-year-olds are current smokers."

 "Although current smoking prevalence among female adolescents began exceeding that among males by the mid- to late-1970s, both sexes are now equally likely to smoke....Nationally, white adolescents are most likely to use all forms of tobacco than are blacks and Hispanics. The decline in the prevalence of cigarette smoking among black adolescents is noteworthy."

 "Sociodemographic factors associated with the onset of tobacco use include being an adolescent from a family with low socioeconomic status."

From *Preventing Tobacco Use Among Young People: A Report of the Surgeon General*. US Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1994.

**A National Health Interview Survey reports that from 1974 to 1990: — Smoking among women decreased from 33% to 24% — Smoking among men decreased from 43% to 28% — Smoking rates among college graduates declined from 28% to 14% — Smoking rates for persons without a high-school education decreased slightly from 44% to 37%.**

Between 1990 and 1991, smoking rates increased for the first time since 1974 due to increased smoking among blacks and women. Also contributing to this rise may be the growth in discount cigarette products and recent surge in the tobacco industry's domestic advertising and promotions.

The prevalence of smoking is highest among people who live below the poverty level: men 39% and women 29%.

Smoking rates are highest among those between the ages of 25 and 44.

Approximately 50% of smokers begin smoking regularly before age 18.

More than 3,000 teenagers become regular smokers every day in the United States.

According to a CDC 1991 Youth Risk Behavior Survey: 70% of students in grades 9-12 reported have tried cigarettes. About 13% of high school students reported frequently smoking.

From American Cancer Society-Cancer Facts & Figures 1994 (pages 22 and 23).

"Nearly all first use of tobacco occurs before high school graduation; this finding suggests that if adolescents can be kept tobacco-free, most will never start using tobacco."

"Overall, about one-third of high-school-aged adolescents in the United States smoke or use smokeless tobacco."

From *Preventing Tobacco Use Among Young People: A Report of the Surgeon General*. US Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1994.

About 3,000 children begin smoking each day in the United States. Smoking in adults has fallen to the lowest level in 50 years (about 25%). Teen smoking has remained constant.

From Houston TP, ed. *Tobacco Use. An American Crisis—Final Conference Report and Recommendations From America's Health Community—Proceedings from the Washington, DC; January 9-12, 1993 Conference* [Cosponsored by the American Medical Association, the Centers for Disease Control and Prevention, the City of Hope National Medical Center, the Coalition on Smoking OR Health (the American Cancer Society, the American Heart Association, and the American Lung Association), the Memorial Sloan-

Kettering Cancer Center, and the University of Texas M.D. Anderson Cancer Center].

The prevalence of smoking among US adults was 25.7 percent from 1990 through 1991. In these years the use of cigarettes, which had been declining since 1973, stopped declining.

An estimated 6 million teens and 100,000 children under age 13 smoke.

An estimated 23.6 percent of women in the United States reportedly smoke. The percentage of women who smoke more than 25 cigarettes a day has almost doubled (from 13% in 1965 to 23% in 1985).

From *N Engl J Med*; March 31, 1994, 907-912.

## SMOKING CESSATION

Those who quit smoking, regardless of age, live longer than those who continue to smoke.

Smokers who quit before age 50 have half the risk of dying in the next 15 years compared with those who continue to smoke.

Those who quit smoking substantially decrease their risk of many cancers.

Benefits of smoking cessation include risk reduction for other major diseases including coronary artery disease and cardiovascular disease. (As outlined in the 1990 Surgeon General's Report on the benefits of smoking cessation.)

A 1989 Gallup Survey reported that the following persons want to quit smoking: — 57% of smokers age 50 and above — 67% of smokers aged 30-49 — 68% of smokers aged 18-29

From American Cancer Society-Cancer Facts & Figures 1994 (p.23).

"Smoking-cessation programs tend to have low success rates. Recruiting and retaining adolescents in formal cessation programs are difficult."



✍ "School-based smoking-prevention programs that identify social influences to smoke and teach skills to resist those influences have demonstrated consistent and significant reductions in adolescent smoking prevalence, and program effects have lasted one to three years. Programs to prevent smokeless tobacco use that are based on the same model have also demonstrated modest reductions in the initiation of smokeless tobacco use."

From Preventing Tobacco Use Among Young People: A Report of the Surgeon General. US Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1994.

## NICOTINE AND ADDICTION

✍ The 1988 Surgeon General's Report on nicotine addiction concluded that: — Cigarettes and other forms of tobacco are addicting — Nicotine is the drug in tobacco that causes addiction — The pharmacologic and behavioral process that determines tobacco addiction is similar to that which determines addiction to drugs such as heroin and cocaine. Nicotine is found in substantial amounts in tobacco.

✍ Nicotine is absorbed readily from tobacco smoke in the lungs and from smokeless tobacco in the mouth or nose and is rapidly distributed throughout the body. From the American Cancer Society—*Cancer Facts & Figures* 1994 (page 23).

✍ "Most adolescent smokers are addicted to nicotine and report that they want to quit but are unable to do so; they experience relapse rates and withdrawal symptoms similar to those reported by adults."

✍ "Tobacco is often the first drug used by those young people who use alcohol, marijuana, and other drugs."

From Preventing Tobacco Use Among Young People: A Report of the Surgeon General. US Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1994 (page 5).

✍ "...nicotine, an alkaloid found in the tobacco leaf and nowhere else, is an addictive drug. A poison at high doses (it has been used as an insecticide), nicotine in small amounts may pleasure the smoker by reducing stress and providing a sensation of alertness or relaxation...."

From American Lung Association—*Lung Disease Data* 1994 (p 32).

## HEALTH-CARE COSTS ATTRIBUTABLE TO SMOKING IN THE UNITED STATES

✍ Increased health-care costs, lost productivity and missed work, higher insurance costs, and higher maintenance costs in businesses in which employees may smoke are at least \$68 billion annually.

From Houston TP, ed. Tobacco Use: An American Crisis—Final Conference Report and Recommendations From America's Health Community—Proceedings from the Washington, DC; January 9-12, 1993 Conference [Cosponsored by the American Medical Association, the Centers for Disease Control and Prevention, the City of Hope National Medical Center, the Coalition on Smoking OR Health (the American Cancer Society, the American Heart Association, and the American Lung Association), the Memorial Sloan-Kettering Cancer Center, and the University of Texas M.D. Anderson Cancer Center].

✍ In 1987, total health-care costs related to smoking were an estimated \$308.7 billion according to the 1987 National Medical Expenditures Survey (NMES-2) and from the Health Care Financing Administration (HCFA). The estimated costs for 1993 were a total \$50 billion according to the same statistical calculations used for the 1987 derived costs applied to HCFA medical cost data.

✍ Estimated Medicare costs for in-hospital care for diseases related to tobacco smoke over the next 20 years in the United States are estimated at \$800 billion. (From the CDC.)

From MMWR 1994; 43:469-472.

✍ The 1992 US Surgeon General's Report estimates that the total lifetime medical care costs for smokers exceeds those for nonsmokers by \$501 billion.

✍ The Congressional Office of Technology Assessment estimated that cigarettes cost Americans \$68 billion annually in related health-care costs and lost productivity. The costs of medical treatment of smoking-related diseases and of lost productivity amount to \$2.59 per pack of cigarettes sold in the United States. From American Cancer Society—*Cancer Facts & Figures* 1994 (pages 22 and 23).

**A Centers for Disease Control (CDC) editorial regarding the 1993 health-care costs data noted: "for each of the approximately 24 billion packages of cigarettes sold in 1993, approximately \$2.06 was spent on medical care attributable to smoking. Of the \$2.06, approximately \$0.89 was paid through public sources."**

✍ The Congressional Office of Technology Assessment estimated in their 1993 report that the total financial cost of smoking to society was \$2.59 per pack. From N Engl J Med; April 7, 1994: 975-980.

## PASSIVE SMOKING

Tobacco smoke contains over 4,000 chemical compounds including at least 43 different carcinogenic substances.

In December 1992 the Environmental Protection Agency concluded that widespread exposure to environmental tobacco smoke (ETS) presents serious and substantial health problems.

Each year about 3,000 nonsmoking adults die of lung cancer as a result of breathing smoke from cigarettes.

**Of an estimated 53,000 deaths caused by passive smoking annually in the United States, approximately 37,000 are attributed to heart disease. An estimated 3,000 deaths from lung cancer annually in the United States are attributable to ETS. From *N Engl J Med*; March 31, 1994: 908.**

The risk of dying from lung cancer is 30% higher for a nonsmoker living with a smoker compared with a nonsmoker living with a nonsmoker.

ETS is estimated to cause 35,000 to 40,000 excess heart disease deaths among people who are not current smokers. ETS contains essentially all of the same carcinogens and toxic agents as those inhaled directly by smokers. ETS can cause aggravated asthmatic conditions, impaired blood circulation, bronchitis, and pneumonia. ETS poses additional health hazards for unborn and young children. According to the 1988 NHIS, about 10 million children under the age of 6 are exposed to ETS by a household member.

Children exposed to secondhand smoke have increased risks of respiratory illnesses and infections, impaired development of lung function, middle ear infections. Infants born to mothers who smoked during pregnancy are more likely to die from Sudden Infant Death Syndrome.

From American Cancer Society—*Cancer Facts & Figures 1994* (pages 22 and 23).

ETS, as a human lung carcinogen, causes approximately 3,000 lung cancer deaths annually in US nonsmokers. Secondhand smoke also causes an estimated 37,000 heart disease deaths and 13,000 deaths from other cancers each year.

From American Lung Association—*Lung Disease Data 1994* (p 30).

## THE TOBACCO INDUSTRY

The tobacco industry (combined) currently spends about \$4 billion each year on advertising and promotions. Tobacco advertising and promotions that

appeal to young people remain virtually unrestricted.

The tobacco industry (combined) after tax profits in 1989 were \$7.2 billion.

From Houston TP, ed. Tobacco Use: An American Crisis—Final Conference Report and Recommendations From America's Health Community—Proceedings from the Washington, DC; January 9-12, 1993 Conference Cosponsored by the American Medical Association, the Centers for Disease Control and Prevention, the City of Hope National Medical Center, the Coalition on Smoking OR Health (the American Cancer Society, the American Heart Association, and the American Lung Association), the Memorial Sloan-Kettering Cancer Center, and the University of Texas M.D. Anderson Cancer Center].

"The tobacco industry devotes an annual budget of nearly \$4 billion to advertising and promoting cigarettes. . . there has been a continuing shift from advertising to promotion, largely because of banning cigarette ads from broadcast media.

The effect of the ban is dubious, however, since the use of promotional materials, the sponsoring of sports events, and the use of logos in nontraditional venues may actually be more effective in reaching target audiences. Clearly, young people are being indoctrinated with tobacco promotion at a susceptible time in their lives." (Page iii, preface by the US Surgeon General M. Joycelyn Elders, M.D.)

"Young people continue to be a strategically important market for the tobacco industry. Young people are currently exposed to cigarette messages through print media (including outdoor bill-boards) and through promotional activities, such as sponsorship of sporting events and public entertainment, point-of-sale displays, and distribution of specialty items. Cigarette advertising uses images rather than information to portray the attractiveness and function of smoking. Human models and cartoon characters in cigarette advertising convey independence, healthfulness, adventure-seeking, and youthful activities—themes correlated with psychosocial factors that appeal to young people."

From Preventing Tobacco Use Among Young People: A Report of the Surgeon General. US Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1994.

Philip Morris USA's Parliament brand cigarettes was a \$4 million advertising account in 1993. Marlboro brand was an \$80 million advertising account in 1993. From Chicago Tribune, Friday, September 30, 1994 Section 3, page 2 "George Lazarus On Marketing" Column.

Philip Morris was the 7th largest US industrial corporation in 1992, with \$50 billion in sales. Philip



Morris made \$4.9 billion net in 1992—more than any other company in the United States.

From 1975 to 1990, annual cigarette advertising rose from \$500 million to \$3.9 billion (more than a 3-fold increase in 1975 dollar value). In 1989, Philip Morris spent \$2 billion to promote its products—the largest advertising budget of any company in the United States in that year.

The tobacco industry gave \$2.5 million to political causes during the 1992 presidential campaign (a 5-fold increase over funds contributed in 1988). Contributions to the US House and Senate candidates in 1992 exceeded \$2.2 million.

From N Engl J Med; April 7, 1994; 975-980.

Domestic tobacco sales were \$4.7 billion in 1986, up \$282 million over the previous year. Net earnings were \$1.4 billion, 13% higher than the previous year. International tobacco sales were \$1.2 billion in 1986, up \$162 million from the previous year. Total unit volume rose by 3.3% to 89.7 billion units, with Camel volume up 8%.

RJ Reynolds Tobacco International sales increased by 16% in 1986 to \$1.2 billion. Net earnings rose from 7.9% to \$218 million in 1986. Total unit volume on international market increased more than 3% to about 90 billion units sold internationally. From RJR Nabisco Annual Report, 12/31/86.

BAT Industries reported a tobacco trading profit

of 1.314 million pounds in 1992, up 24% (record increase). Cigarette volumes rose to over 570 billion. Sales of international brands grew by 19%.

From BAT Industries Annual Review & Summary Financial Statement, 1992.

Brooke Group, Ltd, 1991 revenues were \$1.17 billion for year ending 12/31/91, with an increase of \$71.6 million from the previous year. Principal contributors were from the Liggett Group.

Liggett Group net sales in 1991 were 621.4 million, rising 14% from 1990 net sales. Considerable resources were directed at international sales in 1991.

From Brooke Group, Ltd., 1991 Stockholders Report.

US cigarette exports have increased due to the aggressive marketing in expanded foreign markets by the tobacco industry. A September 1993 report from the US Department of Agriculture estimates that US cigarette exports have increased approximately 275% since 1985; exports of cigarettes to Japan have increased almost 800% (6.5 billion in 1985 to 56 billion in 1993); exports to South Korea increased from 1.3 billion in 1987 to 4 billion in 1993; exports to the former Soviet Union countries increased from 4.6 billion in 1991 to 13.6 billion in 1993; overall US cigarette production from July 1992 through June 1993 was 702 billion with an increased output due to foreign demand of US tobacco leaf and discounted cigarettes and lower prices on leading brands.

From American Cancer Society-Cancer Facts & Figures 1994 (pages 22 and 23).

## PRIMARY CARE PHYSICIANS

The Little Rock VA Medical Center has openings for Primary Care Physicians to work primarily in Ambulatory Care. Physicians trained in Internal Medicine and Family Practice, who have interest in providing primary care to a defined set of patients in collaboration with physician extenders, are encouraged to inquire. Excellent opportunities are available for continuing education and for teaching of students and house staff.

Competitive remuneration, generous fringe benefits, and excellent working conditions.  
Contact:

Joseph H. Bates, M.D., Chief, Medical Service  
John L. McClellan Memorial Veterans Hospital  
4300 West 7th Street,  
Little Rock, AR 72205  
(501)-660-2029.



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# TALK about the Patient Protection Act

A Collection of Editorials by the *Arkansas Democrat-Gazette's* Associate Editor Meredith Oakley

*The following is a collection of Meredith Oakley's editorials regarding on-going health care legislative issues. The editorials appeared in the Arkansas Democrat-Gazette during the period of February 5, 1995 through February 20, 1995. Meredith Oakley is associate editor of the Arkansas Democrat-Gazette. These editorials are reprinted here with her permission.*

***Sunday, February 5, 1995***

## Who will control health care?

When was the last time your insurance agent got out of bed at 3 a.m. to fill a prescription for you? When was the last time he met you at the emergency room to administer aid?

These are just two of the questions that occurred to me when I opened up the newspaper last week and saw the full-page ad in which Arkansas Blue Cross-Blue Shield declared itself to be my "hometown health care providers."

Now, I don't happen to have Blue Cross-Blue Shield insurance - never have had - so I asked the aforementioned questions of a few people who do. Do you know that not one of them could remember any instance in which Blue Cross-Blue Shield filled a prescription or conducted an annual physical or set a broken arm or delivered a baby?

In fact, none could remember a single instance in which Blue Cross-Blue Shield had administered any kind of health care.

What's even more interesting is that all of these people were under the impression that Blue Cross-Blue Shield is not in fact a health care provider but an *insurance company*. Well, live and learn.

In case you haven't noticed, the burning issue at the statehouse isn't the proposed constitutional convention or the governor's road program or even the move to change the face of education funding as we know it.

The burning issue is health care, and not just one area of health care, but multiple areas.

There are bills addressing licensure, oversight, malpractice, education, insurance, pharmaceuticals, physical therapy, nursing and nursing homes. There are bills to permit dental hygienists to administer topical anesthetics and bills to permit nurses to prescribe drugs. There are optometry bills and disability bills and no-smoking bills. There are tax bills and research bills and if-it-ain't-broke-let's-fix-it-anyway bills, all addressing some aspect of health care.

There would be plenty of activity in the hallways and back rooms of the state Capitol in any event, but the emphasis on health care this session has sweetened the intrigue for political junkies of all stripes.

Take, for instance, the us-versus-them battle that has erupted - "evolved" might be a better word - between what you and I think of as health care providers and those such as Blue Cross-Blue Shield who are trying to popularize the term "health care provider" as a euphemism for health insurers.

The current skirmish over who will control health care in Arkansas is an outgrowth of the Clinton-inspired unpleasanties over who will control health care in America.

It's unlikely that the conflict will be resolved any time soon, but a diverse group of more traditionally identifiable health care providers is in it for the duration.

Did I say diverse? Well, when was the last time you saw chiropractors and physicians on the same side of an issue? Or optometrists and ophthalmologists, for that matter?

No fewer than 17 organizations have banded together to form the Patient Protection Act Coalition: Area Agencies on Aging of Arkansas, Arkansas Association of Ambulatory Surgery Centers, Arkansas Chiropractic Association, Arkansas Counseling Association, Arkansas Home Care Association, Arkansas Hospital Association, Arkansas Medical Society, Arkansas Occupational Therapy Association, Arkansas Ophthalmological Association, Arkansas Optometric Association, Arkansas Osteopathic Medical Association, Arkansas Pharmacists Association, Arkansas Physical Therapy Association, Arkansas Podiatric Medical Association, Arkansas Psychological Association, Arkansas Speech-Language-Hearing Association and the Arkansas State Dental Association.

The proposed legislation from which this coalition draws its name is commonly referred to as the "any willing provider" bill, which we'll talk about tomorrow.



**Monday, February 6, 1995**

## **Heresy in health care "reform"**

### **Patient Protection Act causes ruckus**

The impetus behind all those advertisements being run by Arkansas Blue Cross-Blue Shield about how your hometown health care provider is about to change but "not for the best" is a proposal known as the Patient Protection Act of 1995, commonly referred to as "any willing provider" legislation.

Briefly, the proposal would give patients the right to seek health care services from the provider of their choice, not merely from those approved by the health insurance plan to which they subscribe.

The Patient Protection Act would give patients the opportunity to see the health care provider of their choice" by granting providers the right to participate in health benefit plans from which they now are excluded.

The health care providers in question are physicians and surgeons, osteopaths, podiatrists, chiropractors, physical therapists, speech pathologists, audiologists, dentists, optometrists, hospitals, hospital-based services, psychologists, professional counselors, respiratory therapists, pharmacists, occupational therapists and long-term care facilities, home health care and hospice care and ambulatory surgery centers licensed by the state.

Is this a controversial proposal? Let me put it this way: If our society burned heretics at the stake, and large insurance companies and health maintenance organizations were judge and jury, representatives of 17 Arkansas health care and services providers that constitute the Patient Protection Act Coalition would be history.

There's another way of looking at this proposal, of course, and that is that the legislation would deny those who administer health benefit plans—read "health insurance"—the right

to choose those providers with whom participants in the plan may do business.

Under terms of the proposal, health benefit plans, health insurance plans or policies, employee benefit plans and health maintenance organizations would NOT be permitted:

- To impose a monetary advantage or penalty—i.e. higher co-payments or reduced reimbursement for services or promotion of one health care provider over another by these methods—that would affect a patient's choice among those health care providers who participate in the health benefit plan;

- To impose upon a patient any co-payment, fee or condition that is not equally imposed upon all beneficiaries in the same benefit category, class or co-payment level under the health benefit plan when the patient is receiving services from a participating provider under terms of the plan.

- To prohibit or limit a qualified health care provider's opportunity to participate in the plan if that provider is willing to accept the plan's terms and conditions, its schedule of fees, covered expenses, utilization regulations and quality standards.

It should be noted however, that the proposed Patient Protection Act would NOT prevent a health benefit plan from instituting measures designed to maintain quality and control costs as long as those measures were imposed equally on all providers.

The insurance industry is not at all happy about the Patient Protection Act, and Blue Cross-Blue Shield, the state's largest insurer, may be the unhappiest of all.

In a subsequent column, I'll attempt to tell you why.

**Sunday, February 12, 1995**

## **The health provider issue is choice**

Proponents of so-called "any willing provider" legislation may lack the resources of the opposition, but they definitely have a more compelling battle cry: People, not profits.

For opponents, chief among them Arkansas Blue Cross and Blue Shield, the issue is not so much one of health care as of economics. Don't take my word for it. See tomorrow's column for the official Blue Cross position on the proposed Patient Protection Act of 1995.

For better than a week I've been collecting and poring over information provided by both sides of the argument, and I've got to admit that there are times when I feel not much better informed than I was beforehand.

However, about this I am sure: Health care providers

may be physicians, nurses, technicians, therapists, pharmacists, psychologists, counselors and any number of other things, but insurance companies are not one of them.

Try as I might, I cannot find an insurance agent who will diagnose the ache in my neck or give me a pill to make it go away.

On the other hand, I don't need anyone's permission to make an appointment with the medical professionals who have been providing me with health care for years and years. I trust these people with my health, with my life. As far as I'm concerned, they are the best health care providers I could possibly have, and I don't need an insurance company trying to second-guess me on that.

Choice: I like that word. And as best I can tell, this brouhaha over "any willing provider" legislation is all about choice: whether I'll have it, whether I won't.

God forbid I should ever be in the position in which Paula Lee found herself.

You might have read about Lee's testimony before the Senate Public Health, Welfare and Labor Committee last week. Well, I was there, and I heard it, and it chilled me to the bone.

What I heard was a mother's anguish as she recounted the run-around she received at the hands of a managed-care program while attempting to obtain treatment for her child, who was born with cancer.

Lee wanted the best doctor for her child, but that doctor was not part of the managed-care program in which she was enrolled. Time and time again, she was referred to hospitals, physicians and clinics within the program that were unequipped to deal with the child's disease.

In the end, she was forced to go outside the program to get him the care he so desperately needed.

"Insurance companies are choosing who is my best doctor," she told the committee in a voice choked with anguish. "That's just not fair."

Managed care is by definition any form of health plan that initiates selective contracting to channel patients to a

limited number of providers.

As I read it, the proposed Patient Protection Act of 1995 would expand that number without jeopardizing the quality of health care now available under health benefit plans because health care providers would have to meet standards set by the insurer providing the plan.

### **Manhandling mounties**

Note to Secretary of State Sharon Priest: You've made a good start at bringing law and order to the House That Bill Built, but McCuen's Mounties need more of your attention. They walked into an overcrowded committee room last week and promptly began manhandling citizens and threatening them with arrest if they did not clear the room.

Madam Secretary, the heavy-handed tactics were both unprovoked and unnecessary. This was not a demonstration or an unruly mob. It was a quiet assembly of law-abiding citizens, some of whom had driven for hours to testify before the Senate Public Health, Welfare and Labor Committee.

In 16 years of covering the state Capitol, I cannot recall a similar incident having occurred. On behalf of the physician whose coat was almost ripped and the dentist whose arm was bruised and all the other taxpayers who were treated with such savage disrespect, I ask you to rein those uniformed hooligans in.

## ***Monday, February 13, 1995***

### **Why not 'any willing provider'?**

Robert D. Cabe steps forward today to explain Arkansas Blue Cross and Blue Shield's opposition to so-called "any willing provider" legislation.

Blue Cross is not only bankrolling the opposition, it is leading the charge against the proposed Patient Protection Act of 1995.

Cabe is senior vice president for external services at Blue Cross, whose stationery identifies the enterprise as "a mutual insurance company" but whose recent newspaper advertisements tout it as Arkansas' "hometown health care provider."

Forgive me if some of the terms used by Cabe smack of gobbledygook; I did not want to risk misinterpreting Blue Cross' position by attempting to translate for the uninitiated.

"At the outset," Cabe said in a letter hand-delivered to me last week "the issue is economic: What will be the impact and on whom.... Studies by three highly reputable firms have all concluded that administrative costs, health care costs and premiums would all rise as a result of any willing provider legislation....

"Since AWP would likely not affect larger business(es) who are in a position to establish self-insured health benefits plans and since it would not affect programs such as Medicare, federally qualified HMOs, federal employees, and mili-

tary dependents and retirees, the impact will clearly be on those individuals and businesses who must purchase coverage through health insurance companies or HMOs.

"Except for business(es) large enough to consider self-insurance (usually those businesses with 100 or more employees), the cost impact will fall primarily on small businesses and individuals.

"Even worse, since self-insured arrangements, federal programs, etc. can freely negotiate or dictate favorable arrangements with providers, providers will want to shift any loss of income from those sectors to those areas where any willing provider applies.

"Since small business have traditionally been highly price sensitive with respect to health care coverage, it can be anticipated that rising prices will cause many to either stop providing health care coverage or contributing to health care coverage for their employees. The result could be a lot more uninsured individuals, since many who have health problems may not be able to obtain individual coverage....

"Finally, we should point out that while the so-called Patient Protection Act contains the phrase stating that it would . . . give to patients 'the opportunity to see the health care provider of their choice,' as quoted in your column this morning, the provisions of the act do no such thing.

"The act actually allows providers to decide whether they



want to participate in HMOs and other networks, therefore, if a particular physician decides . . . not to participate, for whatever reason, then patients will not have 'the opportunity to see the health care provider of their choice'."

At the close of his letter, Cabe notes that Blue Cross has "made an alternative proposal" in the form of Senate Bill 412.

"The purpose of this bill would be to provide precisely that kind of choice by allowing employers, on an annual basis, to escape being locked in to a narrow network such as an HMO, if they wish to purchase either a point-of-service option, a preferred provider option or a traditional indemnity insurance policy option.

"Such an approach would allow every employee a true choice to obtain coverage with expanded access if they desire."

I have my doubts about that, so let me herewith extend an invitation to the proponents of the Patient Protection Act to respond in this space on Wednesday.

**Addendum**

Cabe attached to his letter summaries of those three re-

ports to which he referred: "The Cost Impact of 'Any Willing Provider' Legislation" by Atkinson and Company; the actuarial report of the Florida Health Security Program by Arthur Anderson & Co.; and a cost analysis of state legislative mandates (any willing provider) by The Wyatt Company.

Dr. Charles E. Venus, former professor of economics at the University of Arkansas at Fayetteville and perhaps the state's most respected economist, recently reviewed those reports. He concluded that behind these reports is "an insistence upon a PPO/HMO (preferred provider organization/health maintenance organization) having some degree of monopoly power over health care providers."

Furthermore, Venus stated, "Neither the Wyatt report nor the Atkinson analysis of costs are studies of actual industry data. They present the results of a model that describes how much or little profit a PPO, depending upon its ability to limit the share of 'providers' it accepts." I know it's complicated. Hang in there. The proposed Patient Protection Act is going to be an issue for a few more days. We'll explore it in greater detail in subsequent columns.

*Wednesday, February 15, 1995*

**Resurrecting Harry and Louise**

On Monday, we heard from Robert D. Cabe, a senior vice president of Arkansas Blue Cross and Blue Shield, which opposes so-called "any willing provider" legislation.

David Wroten, assistant executive vice president of the Arkansas Medical Society and a member of the Patient Protection Act Coalition, accepted my invitation to respond to Cabe's assertions. Herewith, his comments in support of the proposed Patient Protection Act of 1995, Senate Bill 299.

"It is worth noting once again," Wroten writes, "that the same industry which struck fear in the hearts of America with the 'Harry and Louise' ads is now opposed to patients choosing their doctor. The insurance industry fought national health care reform by telling Americans that under reform they would not be able to choose their doctor. Now that reform is on the shelf, they are telling Arkansans that choice is too expensive.

"The fear that is being used to support their new position depends on which ad you read. One ad would have you believe that quality is the issue, that insurance companies choose only the most qualified doctors, pharmacists, hospitals, etc.

"However, last week the president of Health Advantage, the Baptist Hospital-Blue Cross HMO, admitted on a local radio show that quality is not currently a component of managed care, that they (the insurance industry) did not really know how to measure quality.

"That brings us to the real primal fear: 'Insurance premiums will increase 28 percent.' This statement is a great

attention-getter and has caused several employer groups to oppose the legislation. However, it is one of the most destructive falsehoods ever perpetuated in our state. In other words, IT IS A LIE!

"The studies cited by Mr. Cabe and other opponents have been duly trashed by Arkansas economist Dr. Charles E. Venus, Ph.D., as well as researchers at Purdue University. They have both revealed that the reports are based on a series of assumptions and hypothetical 'models' rather than on actual experience. The outcome, a 28 percent increase, is justifiable only to the extent that one agrees entirely with their assumptions and created data, which as Dr. Venus states, 'is impossible to do.

"More importantly, the insurance industry actuary flown in from California last week to testify against the bill admitted that there is no clear evidence that any-willing-provider laws would increase health insurance premiums. This acknowledgment by their own actuary is significant since similar laws have been in effect in other states for up to 12 years.

"Unfortunately, some Arkansas employers have been misled by the insurance industry. We hope that after they have seen the true evidence—or lack of it—they will recognize the Patient Protection Act as an opportunity to continue the trend toward managed care while ensuring that their employees have the best possible selection of health care providers.

"The self-insured employers are an example of a group which has been misled into opposing the bill. As Mr. Cabe

correctly points out, the bill does not apply to self-insureds. However, anyone reading the newspaper advertisements would wonder. Ads paid for by Norine Yukon of Prudential state that self-insureds would be affected. Many of the businesses listed in their ad are self-insureds. Federal ERISA exemptions prevent these businesses from being affected.

"Finally, SB 412, the Blue Cross alternative, is an insurance company smoke-screen designed to defeat the Patient Protection Act. It provides choice of health benefit plans, not choice of doctor. It only provides choice of doctor if you can afford the higher premiums and out-of-pocket costs.

"The economic reality that many Arkansans face daily dictates that they will continue to have no choice. The bill requires all employers who provide managed care plans to their employees to offer a second plan which does not restrict choice of provider. However, there is no mandate on

insurance companies to offer an additional plan.

"The financial constraints created by this bill would make it impossible for many companies to offer this type of coverage, thereby driving many insurance companies from the market. In short, SB 412 is not a solution but a new problem.

"The Patient Protection Act, SB 299, really does strike a balance between cost controls and patient choice," Wroten concludes. "It does not guarantee that every provider will want to participate in the plans. It does, however, guarantee that providers can only participate if they meet and agree to the quality standards, utilization guidelines and, most importantly, the fees set by the insurance companies. This, is the best way we know to provide an increased choice for patients while preserving the cost savings of managed care plans."

Stay tuned. I expect the debate to continue.

**Friday, February 17, 1995**

## Bill-killing plan fails

They celebrated last night, but today the proponents of choice in health care begin regrouping for a few more rounds with the insurance industry.

So-called "any willing provider" legislation, the proposed Patient Protection Act of 1995, was expedited on the Senate calendar Thursday, thanks to a keen desire on the part of senators to (a) be rid of this most controversial issue and (b) get to the reception at the Governor's Mansion on time.

The passage of Senate Bill 299 was decisive—32 "aye" votes out of a possible 35, an impressive tally in the face of the intense and costly campaign waged by Arkansas Blue Cross Blue Shield to kill the bill by any means possible.

The most recent Blue Cross gambit was an amendment designed by Blue Cross to turn the legislation into a piece of junk. Proposed in the Senate by Mike Everett and Mike Bearden, the amendment would require employers who offer managed-care health insurance plans to offer traditional indemnity plans also.

(Managed care is any form of health plan that initiates selective contracting to channel patients to a limited number of providers, e.g. an HMO. An indemnity plan is one in which health insurance benefits are provided in the form of cash payments rather than services, e.g. "group" plans.)

Given the cost constraints of offering two separate plans, many employers would be forced to drop insurance programs from their employee benefits packages. The proposed amendment was a bill killer, pure and simple.

SB 299 now goes to the House, where it will face another Blue Cross-orchestrated round or two in committee.

Speaking of Blue Cross, that costly telephone campaign the insurance company has been financing—the 800 number in those newspaper ads belongs to Bonner and Associates, a telemarketing firm in Washington, D.C.—seems to have backfired.

Arkansans have been encouraged to call that number if they are against any-willing-provider legislation so that their opposition can be forwarded to their state senator or representatives.

However, some proponents of the legislation who called the number complain that they were misled by those answering the phones into thinking that their support for the legislation also would be forwarded to legislators.

Then on Wednesday, some House members complained that Bonner has been sending them "anti" mail from people who not only have not called the number but who actually support the legislation.

Lawmakers are going to hate me for pointing this out—but since when have they loved me?—but the fact of the matter is that if you want to communicate with your senator or representatives, a better way is to send him or her a postcard or a letter, leave a personal message with the operator at the House or Senate switchboard, or deliver your message in person.

Then there can be no mistake about how you feel about this or any other piece of legislation.

Be advised, however, that legislators and their switchboard operators are often extremely busy during a session and would be grateful if you would put your comments in writing and mail them in care of the Arkansas House or Arkansas Senate, State Capitol, Little Rock Ark, 72201.

On the other hand, things can move quickly during a legislative session. At such times, only a phone call will do (House 372-6211; Senate, 682-2902).

The very best tack to take, however, is to voice your support or opposition before debate heats up.

Unfortunately, lawmakers can participate in debate or read letters and answer phone calls. Doing all these things at once is nigh on to impossible.



Security update

Many were denied admittance to Wednesday's meeting of the Senate Public Health, Welfare and Labor Committee at which the any-willing-provider bill was voted on, but no one was evicted, forcibly or otherwise.

Secretary of State Sharon Priest, horrified by reports of her security staff's manhandling tactics a week before, posted security staff at each entrance this time to make sure the committee room did not become overcrowded in violation of fire safety laws. She also installed a rope barrier between audience and committee members which made for more or-

derly observation.

To satisfy herself that all was going well, Priest also made several visits to the meeting room. She said later that when larger than average crowds are anticipated, she will attempt to arrange roomier meeting facilities for legislative committees.

That won't be easy, because the House and the Senate control use of their various meeting rooms, but Priest deserves an A for effort and no small amount of praise for doing something secretaries of state should do but rarely have done: their job.

Sunday, February 19, 1995

When the lobbyist lost his cool

The Patient Protection Act of 1995 isn't law yet, but it cleared a critical hurdle last week in the Arkansas Senate. Some proponents believe the worst is behind them. They are being encouraged to postpone the celebration, because the only thing more fearsome than a bad loser is a bad loser who faces another shot at the prize.

Opponents of the legislation, Senate Bill 299, suffered a stunning defeat in the Senate Public Health, Welfare and Labor Committee on Wednesday, and no one was more stunned than Bill Phillips of Arkansas Blue Cross and Blue Shield.

A "do-pass" recommendation requires four of the seven-member committee's votes. Before the meeting, lobbyists for both sides of the issue believed the vote would split 3-3 and were looking for Chairman Jerry Bookout to cast the tie-breaking ballot.

To say Bookout was in an unenviable position would be the epitome of understatement.

Traditionally, committee chairmen vote only when it's necessary to break a tie. Opponents exuded confidence—whether real or manufactured, I cannot say—that Bookout would come down on their side. A more skittish group of proponents could only hope that a sense of fairness would persuade him to keep the measure alive long enough to give it another hearing before the full Senate.

After more than four hours of testimony and debate spread across two days, the time for a committee vote came, but a 3-3 vote was out of the question: Sen. Nick Wilson, who had arrived late to the meeting, had left it early. Neither rain nor bitter cold nor a promise to oppose any-willing-provider legislation was going to keep him away from the racetrack that day.

With Phillips, the Blue Cross lobbyist, standing watch at his elbow, Bookout called for the vote. It seemed no contest.

Mike Bearden, who had co-sponsored a bill-killing amendment to no avail, stayed the course and voted no. Jim Scott, once a firm no, raised a few eyebrows by voting "present." Wilson was absent. That left proponents with only three affirmative votes—Jay Bradford, Jean Edwards and

Mike Ross—and no compelling reason, save conscience, for the chairman to cast his ballot.

But he did. Without missing a beat, Bookout quietly spoke the now unanticipated words: "The chairman votes aye."

All around him cheers erupted, but Phillips was ominously silent. Most proponents were too busy celebrating to notice when a group of committee members left the room with Phillips not far behind them.

A handful of observers give slightly different accounts about what ensued when Phillips reached Bookout, but about this there is no disagreement: the smooth, debonair lobbyist lost his cool, pushing past other senators and "getting right in Bookout's face," telling him in no uncertain terms what a louse he was for letting the bill out of committee.

Which may go a long way toward explaining why SB 299 sailed through the Senate a day later with 32 "yes" votes, one "no" and one abstention.

Sure, there was other incentive for senators to support SB 299. Not only does the legislation provide the means for expanding the health care choices of those enrolled in managed-care health insurance plans, but many Arkansans of the just-plain-folks variety have been encouraging their elected representatives to support such choice. Lobbyists' Cardinal Rule No. 1: Never, *never* yell at a legislator. It's safe to speculate that opponents of any-willing-provider legislation have spent the last few days re-evaluating their tactics—and their deportment in the heat of battle.

Addendum

Seasoned statehouse veterans suggest that the winds of change felt so strongly in the Nov. 8 election have joined with term limits to deliver this blow to the faction of Big Business whose lobbyists are known collectively as "the Blues."

Only time will tell if this truly is the case. SB 299 has not yet completed the process, and another Big Guy-Little Guy battle whose principal is Southwestern Bell Telephone Co. is gearing up on the telecommunications front.

There is no denying, however, that this legislative session is unlike any I've observed in 16 years at the Capitol.

In a subsequent column, I'll tell you why.

## A doctor speaks on provider law

During a legislative session, the mail bags of legislators and newspaper pundits runneth over. For the past two weeks, mine has overflowed with letters concerning "any willing provider" legislation. Most of it has been supportive of the proposed Patient Protection Act and has come from the professionals who provide health care and related services.

Space does not permit me to share every argument advanced, but here are excerpts from one cogent letter from a respected Little Rock specialist who requested anonymity lest the "vindictive" insurance industry retaliate against him.

(Members of the insurance industry are welcome to write, too, but please, no 2,000 word essays. These are too lengthy to be done justice in condensed form.)

"There are many activities in the health care field which are a concern to all the providers," writes Little Rock Specialist. "Lack of access by patients to the provider they choose is one of the concerns which we all have and (which) is trying to be addressed in the Legislature with the Patient Protection Act. This has been precipitated by the insurance companies' desire to control the health care dollar in a much more aggressive fashion than they have in the past. Many of the arguments that they put forth in being against the . . . act just do not ring true."

Take the claim that quality would deteriorate because patients would have access to the physician of their choice.

"The quality of medical care in this country has never been an issue and is recognized by all to be the best in the world," Little Rock Specialist writes. "Do they honestly think they can improve it further?"

"I can assure you, being involved in the day-to-day practice of medicine, that the insurance companies make virtually no effort to monitor the quality of medical care, and although many people give lip service to trying to measure it, it is extremely difficult to do, and no one yet has found an adequate way. Like so many other things, it is difficult to measure objectively."

Then there's the claim that insurance companies would lose their ability to negotiate with health care providers under the Patient Protection Act.

"There (are) virtually no negotiations that go on now. Certainly, from the physician's side, insurance companies present a fee schedule and various conditions in order to see 'their patients.' If you elect not to participate or attempt to

negotiate with them, they just go to the next provider.

"In fact, some insurance companies have sent out blanket invitation to all physicians and basically accept the first one to call them back and then tell the others their panel is full. This may sound far-fetched, but I know that has occurred from firsthand experience."

Opponents of the Patient Protection Act have made it pretty clear that they are driven by economics, not accessibility. Take, for instance, the money Arkansas Blue Cross Blue Shield has poured into a saturation-coverage media campaign.

(By the way, a spokesman for Blue Cross testified before a Senate committee last week that the company insures more than half of the Arkansas population.)

"The hundreds of thousands of dollars in media advertisement that the insurance industry has spent gives you an idea of the money involved in this issue," Little Rock Specialist writes. "I think the health care providers would be a bit more sympathetic to the industry if the savings that they extracted from the hospital and physicians actually were reflected in significantly lower premiums to the patients, but as things stand now, the difference is going into the coffers of the insurance companies, as nicely outlined in a *Wall Street Journal* report a few weeks ago."

In that article, which appeared Dec. 21, 1994, a health industry analyst for Saloman Brothers Inc., Margo Vignola, calculated that nine of the biggest publicly traded HMOs "are sitting on \$9.5 billion (in) cash," enough for them to buy every minute of advertising time on Superbowl telecasts to run commercials for the next 136 years.

"Health-maintenance organizations are all about penny-pinching," *Journal* reporter George Anders discovered, "yet they are so awash in cash that they don't know what to do with it."

Little Rock Physician has one final thought: Contrary to information promulgated by the insurance industry's media blitz, he states, the Patient Protection Act is not an attempt by the government to pick a patient's health care providers.

"The exact opposite is true. We would like the patient to have a freedom of choice and not have the insurance company pick that provider."

And that's the proposal's biggest selling point with Arkansans. ■

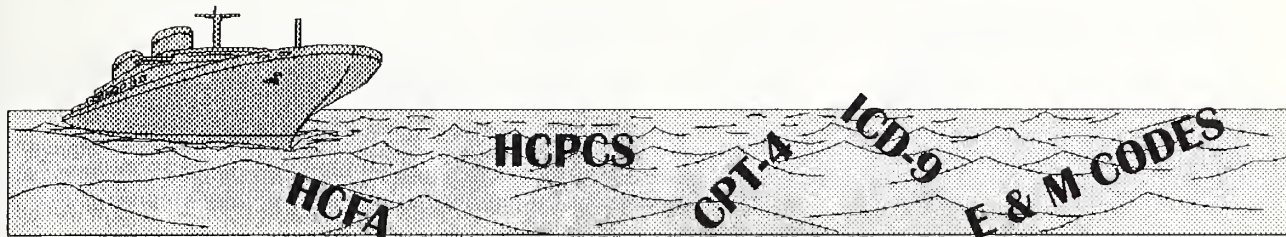




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# The Past History Remains Critical

J. Kelley Avery, M.D.

## CASE REPORT

A 29-year-old woman had two episodes of bleeding at stool. The blood was bright red, and on each occasion consisted of about a tablespoonful or more. Her physician at the time promptly ordered a barium enema, which showed a 2-cm polyp in her transverse colon. A benign but "atypical" adenomatous polyp of the colon was surgically removed.

For the next 13 years the patient was followed by her Ob/Gyn physician, with routine care for three uncomplicated pregnancies. Her physician did the routine gynecologic follow-up, with annual Pap smears, and treated her for a variety of minor ailments. No studies of the colon were done, and there was no record of stool guaiac examinations having been done.

She became a regular patient of a family physician (FP) at age 50, and the initial notes indicate that she was a "new (HMO) patient." She complained of recurrent headaches for 30 years. The history indicated that, in addition to the benign colon polyp, she had been studied thoroughly for her headaches, including a brain scan, which was at the time state of the art. During the ensuing three years, she was seen several times for the headaches and other routine complaints. The headaches were eventually controlled by Tofranil.

In April, the patient went to her FP for a routine examination, and, with no significant abnormal findings, was instructed to continue the Tofranil for her headaches and return for follow-up in four months. It was six months before her next visit, at which time she complained of increased constipation and straining at stool, and she stated that the bowel problem had become very troublesome. Her weight was recorded at 13 pounds less than it had been six months earlier. An unprepared sigmoidoscopic examination

was attempted, but the sigmoidoscope was advanced only to 10 cm. The mucosa was described as "irritated," and the stool was recorded as "faintly guaiac positive." She was given a bowel prep kit and scheduled for a barium enema a few days later.

The report stated that, "A tremendous amount of bowel content, both formed and particulate, was present. The bowel content ruled out the detection of any mucosal lesions, but there was no gross constricting lesion seen." At the office, her physician recognized that the colon study was compromised, ordered her to stop the Tofranil, prescribed a mild tranquilizer, and asked her to return in three to four weeks unless the condition worsened, at which time another attempt at a barium enema would be scheduled. Interim stool studies for blood were negative.

Her weight loss continued and her constipation did not improve. A repeat barium enema showed an "apple core" lesion in the rectum, and at surgery advanced metastatic disease was found. A radical pelvic exenterectomy was done, followed by radiation and chemotherapy. The patient died three years later. A lawsuit was filed charging her FP with negligence in the delay of the diagnosis of cancer of the colon.

## LOSS PREVENTION COMMENTS

By 1982 it was well known that patients who had adenomatous polyps of the colon were at risk for recurrence of this condition with the additional risk of the polyps becoming malignant. While the epidemiology had not yet been completely developed, patients who had this disease and who had been treated surgically were advised to have screening examinations routinely.

There is no record of the surgeon's advice to the patient regarding follow-up, nor do we have a record of subsequent visits to the internist who referred her to the surgeon. We do know that she became a patient of the Ob/Gyn specialist about three years after the surgery, when the internist who had referred her

\* Dr. Avery is chairman of the Loss Prevention Committee, State Volunteer Mutual Insurance Company, Brentwood, Tennessee.

This article appeared in the *Journal of the Tennessee Medical Association* in May 1994. It is reprinted here with permission of the author.

to the surgeon sent her to the gynecologist because of a spontaneous abortion. His records revealed the history of the colon polyp. We also know that she continued under his care for about 16 years.

The real problem with this case is the departure from an acceptable standard of care in that there was no known follow-up after the removal of the adenomatous colon polyp. Both the internist and the Ob/Gyn physician may have strongly urged the follow-up, but there is no record of either having done so. In October the FP was faced with a patient who had lost 13 pounds and had complained of a definite change of bowel habits in the form of severe constipation. The barium enema was done promptly, but was not repeated after the report indicated that the patient was so poorly prepared that he could not be sure about his findings. One wonders why the radiologist who performed the test did not urge that the test be repeated promptly. It may well be that he also did not follow the acceptable standard. It is true that under the care of this FP, three months went by before his patient was admitted to the hospital by another physician, and the final surgery was done. During the three years that elapsed between this radi-

cal surgery and the patient's death, she had numerous complications from radiation and recurrent malignancy. She suffered greatly.

From a clinical perspective, perhaps as many as four physicians could have been charged with negligence. This patient should have had routine screening examinations during the years between her original operation and her final surgical experience. That was the standard of care! However, from a legal perspective, the statute of limitations had run out on the internist and the gynecologist. The radiologist probably was negligent, but his involvement in the case came so late that it probably made no difference in the outcome.

This leaves the FP as the logical legal target. The question must be asked if the fact that this patient was a "new (HMO) patient" colored the FP's management. There was no recorded evidence that it did. The lack of giving the past history of surgery for a colon polyp the attention that the standard of care demanded could not be defended, and a six-figure settlement was negotiated. The past history is indeed critical to our management of most of our patients! ■



**What do you think of the editorials reprinted beginning on page 490 by *The Arkansas Democrat-Gazette's* Meredith Oakley? HOW ABOUT THE PATIENT PROTECTION ACT? **Do you have an opinion on this month's editorial?** *Have you had any interesting experiences regarding dictating? (See special article on page 478.)* What would you like to see more or less of in *The Journal*?**

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Muthu Velusamy, M.B., M.R.C.P.  
Naresh Patel, M.D.  
J. David Talley, M.D.

## THE CHEST X-RAY IN THE DIAGNOSIS OF ACUTE PULMONARY EMBOLISM: WESTERMARK'S SIGN

### INTRODUCTION

A chest x-ray is one of the first studies done in patients suspected to have a pulmonary embolism (PE). While seldom diagnostic by itself, subtle radiographic findings may be present on the regular chest x-ray which may point to the need for additional testing. This issue of CCU will review radiographic findings seen on a plain chest x-ray in a patient with acute PE and discuss the value of one of these findings: Westermark's sign.

### PATIENT REPORT

A 73-year-old female with no prior medical history slipped on an icy sidewalk while getting the mail. An intra trochanteric fracture of the right hip was seen on the x-ray and the following day she underwent total hip replacement. The operation and her initial recovery were uneventful.

Three days after hip replacement, she had the sudden onset of shortness of air and arterial blood gas (on 40% mask) showed pH 7.49,  $pO_2$  59 mmHg,  $pCO_2$  28 mmHg. The calculated alveolar gradient was 191 mmHg. {Incidentally, the formula for the alveolar-arterial gradient is:  $[FI O_2 (713) - (PaCO/RQ)] - PaO_2$ , (normal = 10-20 mmHg)}.

A portable upright chest x-ray revealed an area of hyperlucency of the right hemithorax compared with the left (Figure 1). A ventilation - perfusion scan was done with  $^{99m}Tc$ -labeled particles of macro aggregated albumin and  $^{133}Xe$  gas (Figure 2) and showed PE in both the right and left lungs. The diagnosis of

PE was established with consistent clinical presentation, suggestive chest x-ray findings, and a diagnostic ventilation - perfusion scan. She was promptly anticoagulated with heparin and initially stabilized. Twelve hours later she had a recurrent episode of shortness of air and sustained hemodynamic collapse. A rhythm strip showed sinus tachycardia without a palpable pulse. The patient died despite cardiopulmonary resuscitation.

### DISCUSSION

There are many possible findings seen on the routine chest x-ray in patients with acute PE. While a completely normal chest x-ray is unusual, the vast majority of the findings are nonspecific and seen with

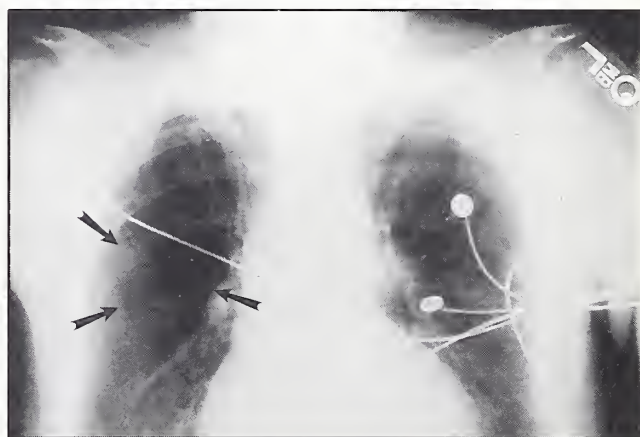


Figure 1: Portable upright chest x-ray of patient with an acute pulmonary embolism of the right lung. The arrows show an area of relative hyperlucency (Westermark's sign). This radiographic finding is only seen occasionally in patients with a pulmonary embolism, however, is highly specific for the disease.

\* Drs. Velusamy, Patel and Talley are with the Division of Cardiology, Department of Internal Medicine, University of Arkansas for Medical Sciences.

a variety of disorders.<sup>1</sup> Possible findings include atelectasis, parenchymal areas of increased opacity, vascular redistribution, a pleural effusion, an elevated hemidiaphragm and hilar enlargement. A few of the radiographic findings of acute PE are unusual and noteworthy. These abnormalities include: oligemia (Westermarck's sign)<sup>2</sup>, a prominent central pulmonary artery (Fleischner's sign)<sup>3</sup>, lines or opacities compatible with pulmonary infarction (Fleischner's lines), a pleural-based area of increased opacity (Hampton's hump)<sup>4</sup>, diminutive size of the pulmonary artery of the involved side (knuckle sign)<sup>5</sup>, and rapid tapering of the right pulmonary artery (sausage sign)<sup>6</sup>.

## WESTERMARK'S SIGN

### PATHOPHYSIOLOGY

In 1938, Nils Westermarck from the Roentgen Department of St. Goran's Hospital of Stockholm noted that an area of oligemia distal to a large vessel correlated with an acute PE. This finding is characterized by an area of local hyperlucency on plain chest x-ray with markedly diminished vascular markings. It is due to a reduction in local blood flow combined with small change in the lung volume. The decrease in blood volume is secondary to mechanical obstruction and reflex vasoconstriction.

### SENSITIVITY AND SPECIFICITY

The prevalence of Westermarck's sign in PE is low. In the PIOPED (Prospective Investigation Of Pulmonary Embolism Diagnosis) study, Westermarck's sign was present in 14% of patients with a PE in the right lung, and 8% of patients with a PE in the left lung.<sup>7</sup> While the sensitivity is low, the specificity of this finding is high, and ranged from 92% (right lung) to 96% (left lung). When the finding is present, a PE was noted in 38% of all pulmonary angiograms (positive predicative value), and when absent, a PE was not seen in 76% (negative predicative value).

### CLINICAL IMPLICATIONS

The presence of Westermarck's sign is associated with a severe degree of gas exchange impairment indicating critical embolization. Additionally, Westermarck's sign rapidly disappears. In one study, it was present in only 18% of patients at the time of diagnosis, and had disappeared in all but 6% of patients after seven days.<sup>8</sup>

### CONCLUSION

Westermarck's sign on the routine chest x-ray is

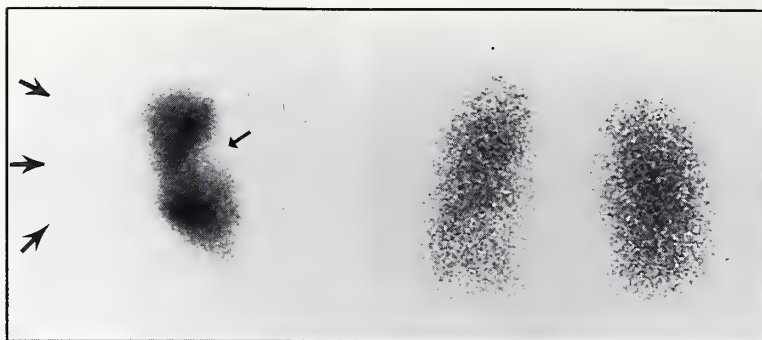


Figure 2: Ventilation - perfusion scan of a patient with an acute pulmonary embolism of the right lung. Anterior view of the perfusion lung scan (left panel) shows nearly complete absence of blood flow to the right lung (large arrows) compared with the left lung. There is also a moderately large wedge shaped defect in the upper lobe of the left lung (small arrows).

uncommon but is a highly specific finding for PE. It is associated with a higher degree of gas exchange impairment and more severe embolization. The main value of this finding is to direct the need for additional diagnostic tests.

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## COYOTES FRUSTRATE CITY DWELLERS AS WELL AS RURAL RESIDENTS

A reader chuckled over a recent Little Rock newspaper headline: "City to repel intrusion by coyotes."

He said, "They better hire the Roadrunner. He's the only one smart enough to handle a coyote."

Forty years of movie and television cartoons have many people with the mistaken notion coyotes are scheming, bedraggled, incompetent bumbles. Wrong, badly wrong. Coyotes are highly adaptable opportunists who find homes in Little Rock's fashionable neighborhoods as well as the remote corners of Arkansas mountain areas.

Coyotes are blamed too for many transgressions, some rightly, some wrongly. The latest headline maker is the accusation of coyotes being responsible for missing house cats in Little Rock.

It's possible, perhaps even likely, said Arkansas Game and Fish Commission biologists since a Little Rock resident reported seeing a coyote carrying a cat in its mouth before dawn one recent morning.

Then city animal control workers began planning how to trap and relocate the errant coyotes, and they called for help by Game and Fish personnel. Unfortunately, this strategy may find the coyotes uncooperative.

If there is anything the coyote has learned down through the years, it is how to avoid man; its only real predator.

Coyotes are relative newcomers to Arkansas along with two other immigrants from the West, the roadrunner and the armadillo. Coyotes were found in appreciable numbers in the northwestern corner of Arkansas in the 1940s. By 1950 they had expanded to much of western Arkansas. Then by 1960 had spread to all except eastern Arkansas. Now coyotes are numerous in every one of Arkansas' 75 counties.

Although coyotes feed on small mammals, including mice, and on birds, they are also scavengers, helping clean up the woods and fields. But they can be serious problems when they feed on poultry, young pigs, sheep, calves, fawns and young wild turkeys. Coyotes at times are a menace to watermelon and cantaloupe crops.

Arkansas trappers once sought coyotes for their pelts, but prices have diminished in recent years from over \$100 each to about \$10. Nocturnal in habits, they are difficult quarries even for varmint hunters with long-range rifles, telescopic sights and electronic callers.

Arkansas houndsmen pursue coyotes with dogs throughout the year as an alternative to fox running, but these chases usually end with the coyote escaping.

Even more of a problem, Game and Fish Commission biologists say, are feral dogs or coyote-feral dog crossbreeds.

"Wolves" is a term used by many Arkansans, although no wolves have lived in the state since the early part of this century. But domestic dogs gone wild are destructive and sometimes mix with coyotes. The results may be wild canines of various sizes and colorations.



## LAST YEAR'S FORMS NOT VALID FOR DEER HUNT APPLICATIONS

Don't try to be an early bird in applying for a deer hunting permit by using last year's forms, advises Don Akers, chief of wildlife management for the Arkansas Game and Fish Commission.

A number of applications have already come in for 1995 hunts on 1994 forms, he said, and they will be tossed out. Forms for 1995 will be available in May at license dealers and Game and Fish Commission offices. Hunters will have until June 30 to submit them.

## COMING UP IN THE OUTDOORS

May 5-7: Ducks Unlimited Great Outdoors Sporting and Wildlife Festival, Agricenter International in Memphis. (901) 758-3825.

May 5-7: 40th anniversary meeting of Arkansas Audubon Society, Petit Jean State Park. (501) 337-4364.

## NEW BOOK CONTAINS IMAGES OF ARKANSAS

Images of the great Arkansas outdoors have been gathered in a new book titled Arkansas Portfolio: Twenty Years of Wilderness Photography by Tim Ernst, of Fayetteville. The book, which is now available in bookstores, includes 107 photographs with a brief cutline to identify the content and location of each photo.

## SHARP-EYED YOUNGSTERS SALUTED FOR AID IN EAGLE INVESTIGATION

Two 13-year-old junior high students at Ouachita School have been recognized by the Arkansas Game and Fish Commission for their help in the DeGray Lake eagle death investigation.

Framed certificates of appreciation and Game and Fish caps were presented to Dusty Tugwell and Adam Saunders.

Wildlife officer Bobby Barger, stationed in Clark County, said the boys spotted an adult eagle on the ground in a field near the lake. They left it alone and hurried to phone the information to wildlife officers then guided Barger to the bird.

The sick eagle died after being rushed to a Little Rock veterinarian experienced in working with birds of prey. But Dr. Marilyn Baeyens was able to draw blood samples from the bird while it was living - the only such samples obtained during the probe of the 26 eagle deaths.

# Arkansas HIV/AIDS Report 1983-1995

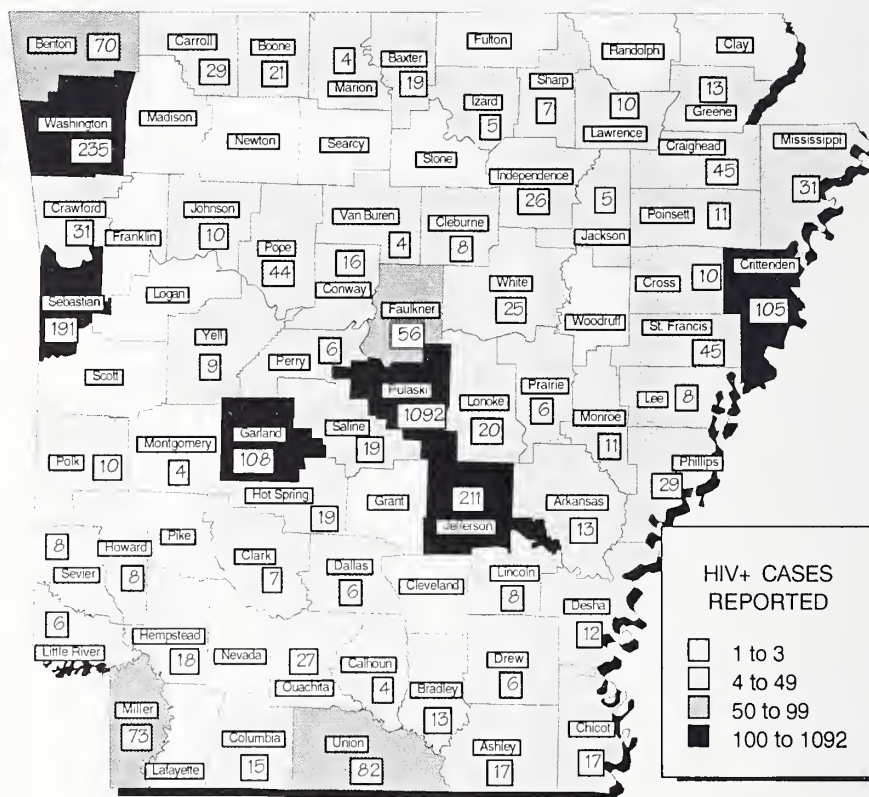
## HIV In Arkansas

### Reporting Requirements

HIV and AIDS case reporting by name and address is required by Act 967 of 1991 and the rules and regulations of the Arkansas Board of Health. Reporting is required at the time a person tests positive and again when they become symptomatic with AIDS. Those required to report include: physicians, nurses, infection control practitioners/infection control committees, laboratory directors, medical directors of nursing homes and home health agencies, clinic administrators, program directors of State agencies and/or persons as may be required by the Board of Health.

Questions regarding reporting forms and requirements may be directed to Jan Bunch, HIV/AIDS Surveillance Administrator, at (501) 661-2387.

**NOTE:** AIDS Statistics are a subset of HIV statistics.



County of residence at the time of test for the 3,021 Arkansans reported to be HIV+. (1/13/95)

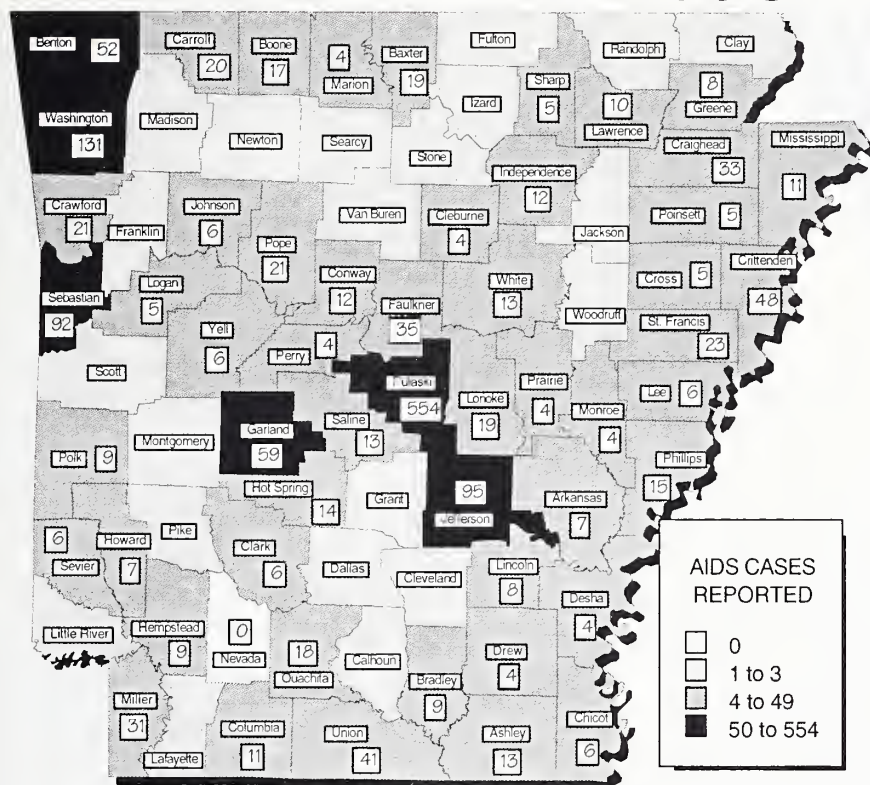
HIV		83-87	1988	1989	1990	1991	1992	1993	1994	1995	Total	%
SEX	Male	100	215	248	413	400	392	352	367	31	2,518	83
	Female	8	26	37	68	85	81	94	90	14	503	17
AGE	<5	1	1	2	8	13	6	3	7	1	42	1
	5-12	0	1	1	5	1	2	1	0	0	11	0
	13-19	0	7	8	14	19	25	11	22	0	106	4
	20-29	33	110	123	183	149	156	175	145	14	1,088	36
	30-39	44	86	103	196	208	179	168	171	19	1,174	39
	40-49	22	25	35	56	70	67	65	77	6	423	14
	>49	8	6	11	17	22	38	23	35	5	165	6
RACE	White	87	170	174	328	298	291	277	258	33	1,916	63
	Black	21	69	106	151	184	173	163	183	11	1,061	35
	Other/Unknown	0	2	5	2	3	9	6	16	1	44	2
RISK	Male/Male Sex	64	132	138	241	241	257	238	221	8	1,540	51
	Injection Drug User (IDU)	13	30	48	73	96	75	64	71	4	474	16
	Male/Male Sex & IDU	19	23	24	32	30	32	26	22	2	210	7
	Heterosexual	5	24	26	59	64	67	98	82	2	427	14
	Transfusion	5	5	4	6	8	10	0	1	0	39	1
	Perinatal	1	1	2	8	13	8	4	7	0	44	2
	Hemophiliac	0	0	6	18	5	6	2	3	0	40	1
	Undetermined	1	26	37	44	28	18	14	50	29	247	8
HIV CASES BY YEAR		108	241	285	481	485	473	446	457	45	3,021	100

Source: AIDS Surveillance Unit, Arkansas Department of Health.



# Arkansas HIV/AIDS Report

## 1983-1995



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HIV and AIDS case reporting by name and address is required by Act 967 of 1991 and the rules and regulations of the Arkansas Board of Health. Reporting is required at the time a person tests positive and again when they become symptomatic with AIDS. Those required to report include: physicians, nurses, infection control practitioners/infection control committees, laboratory directors, medical directors of nursing homes and home health agencies, clinic administrators, program directors of State agencies and/or persons as may be required by the Board of Health.

Questions regarding reporting forms and requirements may be directed to Jan Bunch, HIV/AIDS Surveillance Administrator, at (501) 661-2387.

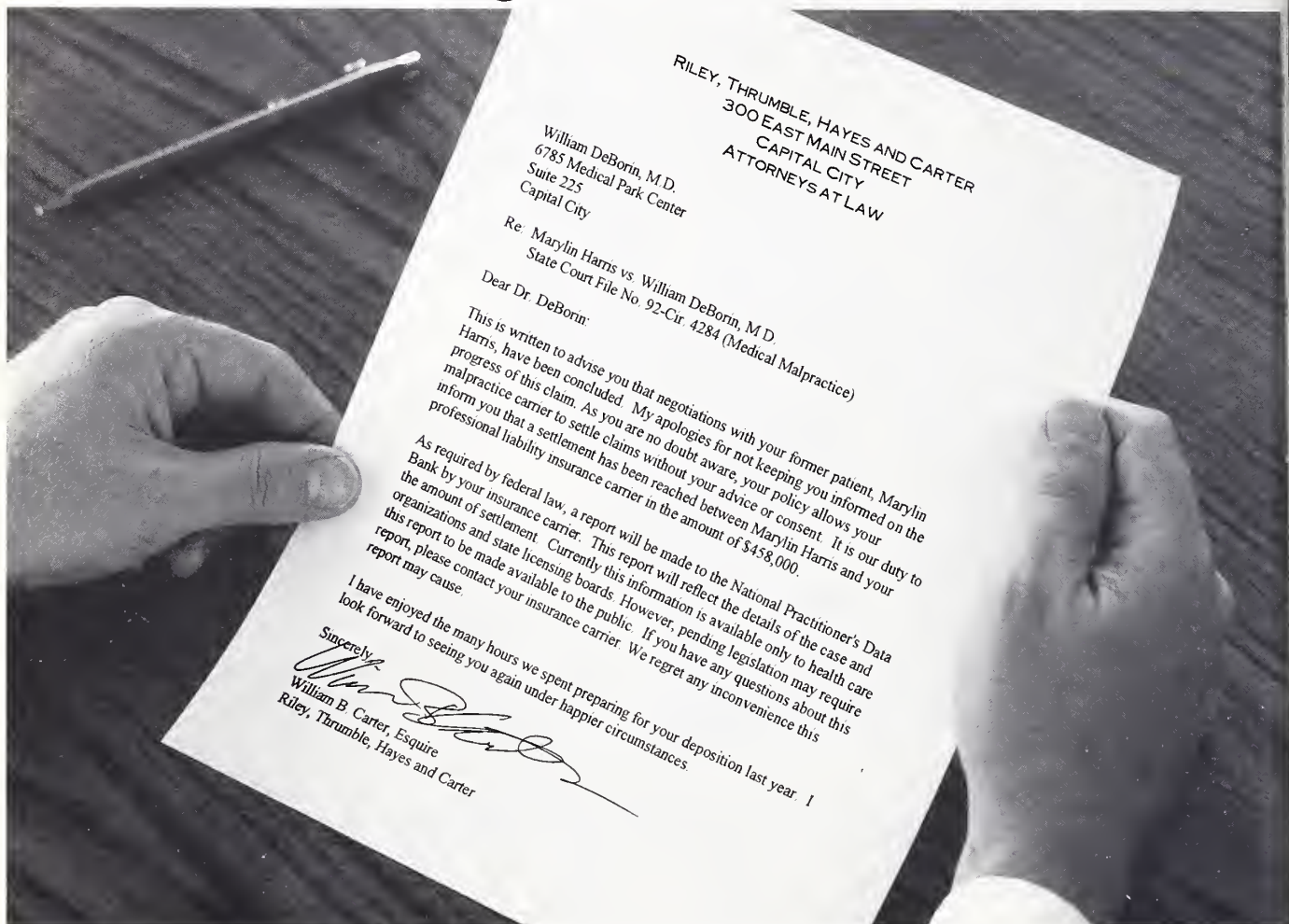
**NOTE:** AIDS Statistics are a subset of HIV statistics.

Of the 3,021 Arkansans reported to be HIV+, 1,644 have been diagnosed with AIDS. (1/13/95)

AIDS		83-87	1988	1989	1990	1991	1992	1993	1994	1995	Total	%
SEX	Male	85	77	70	170	176	250	336	253	18	1,435	87
	Female	5	6	10	20	25	35	64	42	2	209	13
AGE	<5	0	1	1	6	6	3	2	1	1	21	1
	5-12	0	1	0	1	1	0	1	0	0	4	0
	13-19	0	0	0	4	3	2	4	3	0	16	1
	20-29	31	27	24	55	57	81	110	67	2	454	28
	30-39	39	36	41	78	80	128	178	133	10	723	44
	40-49	15	10	7	35	41	52	78	61	3	302	18
	>49	5	8	7	11	13	19	27	30	4	124	8
RACE	White	74	61	58	141	134	206	275	190	13	1,152	70
	Black	16	20	21	47	66	75	121	102	6	474	29
	Other/Unknown	0	2	1	2	1	4	4	3	1	18	1
RISK	Male/Male Sex	55	59	50	122	120	182	237	164	11	1,000	61
	Injection Drug User (IDU)	12	4	11	18	29	45	70	44	1	234	14
	Male/Male Sex & IDU	16	6	6	18	17	21	26	23	2	135	8
	Heterosexual	5	3	7	11	12	24	52	38	1	153	9
	Transfusion	2	7	3	7	11	3	2	4	0	39	2
	Perinatal	0	1	1	6	6	3	3	1	1	22	1
	Hemophiliac	0	1	1	5	5	4	5	6	0	27	2
	Undetermined	0	2	1	3	1	3	5	15	4	34	2
AIDS CASES BY YEAR		90	83	80	190	201	285	400	295	20	1,644	100

Source: AIDS Surveillance Unit, Arkansas Department of Health.

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# New Members

---

## BRYANT

**Beard, Michael Ray**, Family Practice. Medical education, UAMS, 1991. Internship/Residency, UAMS, 1992/1994. Board certified.

## FAYETTEVILLE

**Tomlinson, Robert J.**, Orthopedics. Medical education, Tulane University School of Medicine, New Orleans, Louisiana, 1986. Internship/Residency, Charity Hospital, New Orleans, 1988/1992.

## HARRISON

**Scroggie, Daniel J.**, Family Practice. Medical education, University of Kansas School of Medicine, Wichita, 1989. Residency, Wichita Family Practice Residency Program at HCA Wesley Medical Center, 1992. Board certified.

## JACKSONVILLE

**Dwinell, Mark Edward**, Internal Medicine. Medical education, Jefferson Medical College of Thomas Jefferson University, Philadelphia, Pennsylvania, 1991. Internship/Residency, Medical College of Virginia, 1992/1994. Board certified.

## JONESBORO

**Steffin, Morris**, Neurology. Medical education, Wayne State University School of Medicine, Detroit, Michigan, 1970. Internship, University of Chicago, 1971. Residency, VAMC, Long Beach, Calif., 1975 and UCLA, 1978. Board certified.

## LITTLE ROCK

**Ingram, Jim Mark**, Pediatric/Adult Allergy & Immunology. Medical education, University of Arkansas College of Medicine, 1989. Internship/Residency, UAMS/Arkansas Children's Hospital, 1990/1992. Board certified.

**Thrower, Rufus Jr.**, Obstetrics & Gynecology. Medical education, UAMS, 1977. Internship, State University of New York, Buffalo, 1979. Residency, State University of New York, Buffalo/Tulane Medical Center, New Orleans, Louisiana, 1979/1981. Board certified.

## MAUMELLE

**Taylor, Larry R.**, General Adult Psychiatry & Addictionologist. Medical education, University of Oklahoma, Oklahoma City, 1962. Internship, St. Francis Hospital, Honolulu, Hawaii, 1963. Residency, Menninger and Topeka Kansas V.A., 1965/1968.

## PINE BLUFF

**Courtney, Willis Jr.**, Neurology & Epilepsy. Medical education, UAMS, 1988. Internship, Emory University, 1989. Residency, UAMS, 1992.

## RUSSELLEVILLE

**Williams, Thomas C.**, Anesthesia. Medical education, UAMS, 1990. Internship/Residency, UAMS, 1991/1994.

## RESIDENTS

**Domon, Steven E.**, Psychiatry. Medical education, UAMS, 1994. Internship, University of Arkansas College of Medicine.

**Grant, Jerry H.** Medical education, University of Oklahoma College of Medicine, Oklahoma City, 1993.

**Haley, Tonya Michele**, Pediatric Neurology. Medical education, UAMS, 1991. Internship, UAMS, 1992.

**Halter, Charles Thomas**. Medical education, UAMS, 1994. Internship/Residency, UAMS.

**Helms, William John**, Internal Medicine. Medical education, UAMS, 1992. Internship, UAMS, 1993. Residency, UAMS.

**Jamison-Blair, Beth**, Medicine/Pediatrics. Louisiana State University Medical Center, Shreveport, 1993. Internship, UAMS.

**Maddox, Randolph Peyton**, Emergency Medicine. Medical education, UAMS, 1991. Internship, UAMS, 1992. Residency, UAMS.

**Moore, Glennal M.**, Physical Medicine/Rehabilitation. Medical education, LSUMC, New Orleans, 1993. Internship, UAMS, 1994. Residency, UAMS.

**Mulingtapang, Reynaldo Flores**, Cardiovascular/Interventional Cardiology. Medical education, University of the Philippines, Manila, 1983. Internship, State University of New York, Brooklyn, 1988. Residency, State University of New York, Brooklyn, 1991. Fellowship, University of Miami, Jackson Memorial Hospital, 1994 and currently Ochsner Medical Institute, New Orleans, Louisiana.

**Plovich, Regina Maria**, Emergency Medicine. Medical education, Louisiana State University Medical Center, 1993. Internship/Residency, UAMS.

**Purifoy, Shawn Wesley**, Family Practice. Medical education, UAMS, 1994. Internship, AHEC-NE.

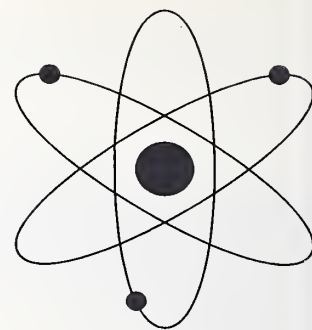
**Yoser, Seth Leigh**, Ophthalmology. Medical education, UCLA, 1988. Internship, Cedars Sinai Medical Center, Los Angeles, Calif., 1989. Residency, Illinois Eye & Ear Infirmary, Chicago, 1993. Currently, Fellowship, University of Tennessee, Memphis.

## STUDENTS

Steven Carl Harper  
Troy Glen Moore

Jonathon Chris Robertson  
Amy Elizabeth Staggs

# Radiological Case of the Month



David Harshfield, M.D.  
Norman Pledger, M.D.  
Kelly Grigg, B.S.

## HISTORY:

This 67 year-old male presented with a six month history of weight loss and malaise. A chest film was obtained.

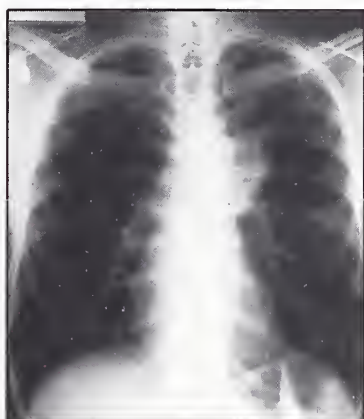


Figure 1



Figure 2

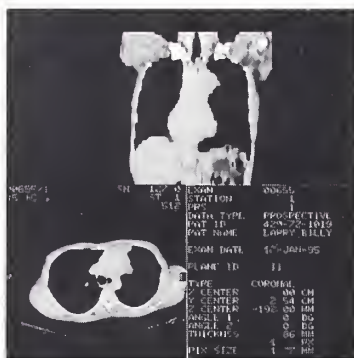


Figure 3

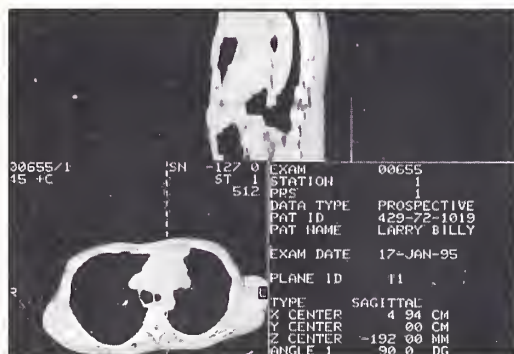


Figure 4

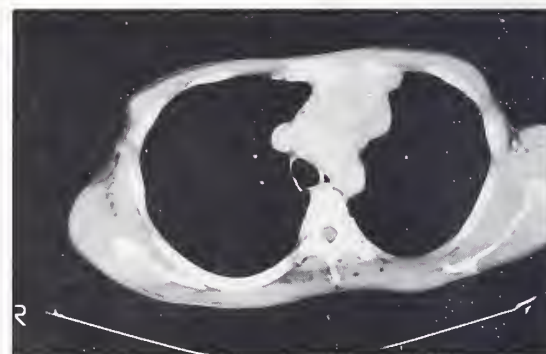


Figure 5



# Lymphoma

## FINDINGS:

*Figure 1 and 2* represent the PA and lateral chest film obtained at the initial clinic visit. A soft tissue mass is seen left of midline on the PA view and in the superior anterior mediastinum on the lateral view. This is producing a widened and lobulated contour to the upper mediastinal silhouette.

*Figure 3 and 4* represent coronal and sagittal reconstructions respectively from a chest CT obtained on this 77-year-old gentleman with a left anterior mediastinal mass. These particular reconstructions were performed to correlate with the anatomy on the PA and lateral chest films. On the coronal CT image (*Figure 3*), the mass is seen contiguous with the aortic arch. On the sagittal CT image (*Figure 4*), this mass is revealed to be predominately anterior mediastinal in position adjacent to the ascending aorta and left brachiocephalic vessels. This explains the reason that on the PA chest film the lateral margin of the descending thoracic aorta is visible. If this soft tissue mass had been more posterior (in the posterior mediastinal space) and contiguous with the aorta (periaortic); the lateral margin of the descending aorta would have been obscured.

*Figure 5* is a cross-sectional CT image through the superior-anterior mediastinum providing further anatomic information as to the position of the mass.

*Figure 6* is a chest film from a different patient presented in a previous "Case of the Month." There is a soft tissue mass which is to the right of midline on the PA view. The lateral view (not shown) revealed this to be in the anterior mediastinum.

*Figure 7* is an axial CT image better defining the position of the mass. The soft tissue mass in the right anterior mediastinum is seen to be predominately soft tissue density with scattered calcification consistent with the diagnosis of a goitrous retrosternal thyroid.

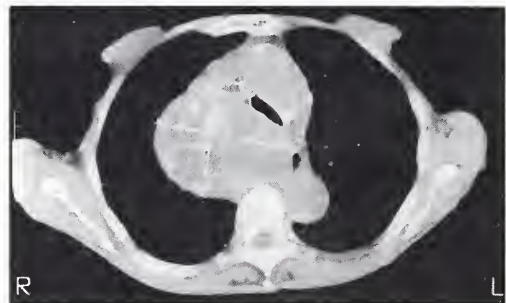
## DISCUSSION:

It is important when evaluating chest masses by plain film technique to localize as specifically as possible their site of origin. The commonly quoted etiology for anterior mediastinal masses are the so-called four T's; thymoma, teratoma, thyroid (substernal) and "terrible" lymphoma. Metastasis is also common in the anterior mediastinum. The patient presented in a previous "Case of the Month" whose images are shown in *Figures 6 and 7* had a substernal goiter. The patient presented in this "Case of the Month" report has a poorly differentiated lymphoma.

Lymph nodes are widely distributed throughout the mediastinum and various methods have been proposed to help clarify the problem of lymph node classification. Intrathoracic lymph nodes are composed of parietal and visceral types. The lymph nodes which were enlarged in this patient were the visceral anterosuperior mediastinal (prevascular) nodes. As shown on the CT scans in *Figures 3 and 4*, the enlarged nodes have an intimate relationship to the great vessels producing the widened and lobulated contour of the upper mediastinal silhouette on the PA chest film in *Figure 1*. The efferent channels drain from these nodes into the right lymphatic or thoracic duct. Although these nodes were easily visible by conventional roentgenographic film, CT best depicts the anatomy crucial for the accurate diagnosis and staging of these diseases.



*Figure 6*



*Figure 7*

## REFERENCES:

1. Fraser RG, Pare JA, Pare PD, Fraser RS, Genereux GP: *Diagnoses of Diseases of the Chest*, Third Edition; 1988.
2. Putman CE, Ravin CE: *Textbook of Diagnostic Imaging*; Second Edition, 1994.

*Editor: David Harshfield, M.D. is Director of Radiology at Riverside Radiology Group in North Little Rock & Clinical Assoc. Prof. of Radiology at UAMS.*

*First Author: Norman R. Pledger, M.D. is Director of Family Practice at Prothro Medical Clinic in North Little Rock.*

*Contributor: Kelly Grigg is a premedical student research assistant at the University of Arkansas for Medical Sciences in Little Rock.*

# ARKANSAS MEDICAL SOCIETY

## 1995 ANNUAL CONVENTION

# "CHARTING THE COURSE"



## CONVENTION AGENDA

*This meeting is designed primarily for Arkansas physicians concerned with health care issues that affect the practice of medicine. Clinic managers, medical students, residents and other allied health professionals will also benefit from the program and activities.*

### *THURSDAY, MAY 4, 1995*

- 9:00 a.m. Golf Tournament
- 1:00 p.m. Registration Opens
- 1:00 p.m. Seminar for Young Physicians
- 2:00 p.m. Council Meeting
- 3:30 p.m. Welcome Reception/Exhibits
- 5:00 p.m. House of Delegates
- 7:00 p.m. Opening Night Party

### *FRIDAY, MAY 5, 1995*

- 7:30 a.m. Council Meeting
- 9:00 a.m. Exhibit Center Open  
(Breakfast served)
- 10:45 a.m. First Session Speaker
- 12:30 p.m. Shuffield Lecture/Luncheon
- 2:15 p.m. Exhibit Center Open
- Grand Prize Drawings
- 3:30 p.m. Second Feature Session

### *FRIDAY, MAY 5, 1995 CONTINUED*

- 5:30 p.m. Blue Cross Blue Shield  
Reception

*Evening is free to enjoy the night life of  
Hot Springs.*

### *SATURDAY, MAY 6, 1995*

- 7:30 a.m. Council Meeting
- 8:00 a.m. Early Morning Refreshments
- 8:45 a.m. Third Session Speaker
- 10:30 a.m. House of Delegates
- 12:30 p.m. Fifty Year Club Luncheon
- 12:30 p.m. Specialties & Committees  
can elect to meet
- 6:00 p.m. Hospitality Hour
- 7:00 p.m. Inaugural Banquet
- 8:30 p.m. President's Reception  
& Dance

### *Date & Location*

- \*Arlington Hotel*
- \*Hot Springs, Arkansas*
- \*May 4-6, 1995*

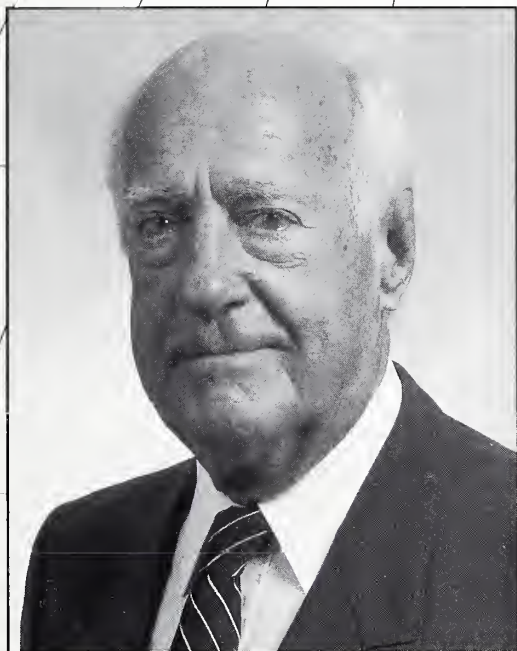
### *Featuring*

- \*Educational Sessions*
- \*CME*
- \*Exhibits*
- \*Inaugural Banquet  
& Dance*
- \*Entertainment*



# ARKANSAS MEDICAL SOCIETY 1995 ANNUAL CONVENTION

## "CHARTING THE COURSE"



### Dr. Edward R. Annis

Edward R. Annis, M.D. will be the keynote speaker at the House of Delegates at the 119th AMS Annual Session at the Arlington Hotel on Thursday, May 4, 1995 at 5:00 p.m. Dr. Annis offers a comprehensive look at the free market alternative to the health care system that would restore the traditional doctor/patient relationship.

Dr. Annis, author of *Code Blue: Health Care in Crisis*, champions the fight to head off government intrusion between doctor and patient and dispels the myth that a "managed" health care system would solve America's problems.

What the press doesn't tell the public - but Dr. Annis does - is that the problems in health care have a "Made in Washington" label. Health care is the most overregulated industry in America. To correct the problem we need less government, not more, and he prescribes a solution to eliminate government interference in the health care industry.

Dr. Annis is the past president of the American Medical Association and the World Medical Association. Many will remember his famous speech as he delivered the physicians' rebuttal to President Kennedy's proposals to move medicine towards socialized medicine. Since 1963, he has been one of the country's most vocal supporters of the free market health care system.

### Keynote Speaker:

Edward R. Annis, M.D.

**"Medical Practice in Turmoil -  
What Lies Ahead?"**

--Thursday, May 4, 1995 5:00 p.m.

### Date & Location

\*Arlington Hotel

\*Hot Springs, Arkansas

\*May 4-6, 1995

### Plus

\*CME Hours & Exhibits

\*Inaugural Banquet & Dance

\*Entertainment

ARKANSAS MEDICAL SOCIETY

1995 ANNUAL CONVENTION

# "CHARTING THE COURSE"



## Featured Speaker:

*Dr. Lenore E. A. Walker*

*--Friday, May 5, 1995 10:45 a.m.*

## Date & Location

*\*Arlington Hotel*

*\*Hot Springs, Arkansas*

*\*May 4-6, 1995*

## Dr. Lenore E.A. Walker

Dr. Lenore E.A. Walker, a licensed psychologist and President and Chief Executive Officer of Walker & Associates, a Denver based consulting firm providing clinical and forensic psychological services around the world, will be speaking on domestic violence on Friday, May 5 at 10:45 a.m.

Dr. Walker is also founder and Director of Domestic Violence Institute, a non-profit institute which conducts research on family violence. Formerly Director and Principal Investigator of Battered Women Research Center, Dr. Walker received National Institute of Mental Health funds to conduct research into the battered women syndrome.

She frequently testifies as an expert witness in civil, criminal and regulatory board legal actions involving abused persons. As a recognized authority in this area, she consults with business, governmental and non-governmental agencies around the world, has testified before Congress and authored ten books.

Dr. Walker has worked as a clinical, forensic, consulting, and school psychologist for almost thirty years. She is in private practice in both the Denver area and Ft. Lauderdale and Miami. In 1987, Dr. Walker was awarded one of the highest honors in the American Psychological Association, the Distinguished Professional Contributions to Public Service Award.

She has appeared on Nightline, Oprah Winfrey Show, Today Show, Good Morning America, CNN and TBS.

## Plus

*\*CME Hours & Exhibits*

*\*Inaugural Banquet & Dance*

*\*Entertainment*



# Medicine in the News

## Health Care Access Foundation Update

As of February 1, 1995, the Arkansas Health Care Access Foundation has provided free medical service to 7,821 medically indigent persons, received 16,576 applications and enrolled 33,608 persons. This program has 1,690 volunteer health care providers including medical doctors, dentists, hospitals, home health agencies and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.

## The Arkansas Department of Health Investigates Controlled Substance Diversion

The Arkansas Department of Health, Division of Pharmacy Services and Drug Control, is charged with the enforcement of laws and regulations governing legitimate drug handlers in the State of Arkansas. As part of this responsibility, the Division coordinates regulatory and compliance investigations pertaining to records, inventories, distribution, and security requirements relating to controlled substances.

By authority of Act 1146 of 1993, the investigators and inspectors of the Division are utilized by the Arkansas State Medical Board; Arkansas State Board of

all areas are increasing. The "potency" of drugs, especially alfentanil, fentanyl and sufentanil, used in the operating room, make diversion from this area extremely dangerous. Facility, Pharmacy, and Operating Room Policies and Procedures to assure controlled substances are not available to persons who are not authorized to have access to controlled substances, should be reviewed.

Existing laws and regulations were developed to ensure patients receive needed drugs and are being attended by competent drug-free providers of health care.

If you have any questions relating to controlled substance accountability and security, please call or write:

Arkansas Department of Health  
Division of Pharmacy Services  
and Drug Control  
4815 West Markham, Slot 25  
Little Rock, AR 72205-3867

Your prompt attention addressing this urgent concern is appreciated. ■

*Investigations have revealed discrepancies in required documentation and lack of compliance with controlled substance security requirements as they relate to controlled substance wastage.*

Dental Examiners; Arkansas State Board of Nursing; Arkansas Veterinary Examining Board; and the Arkansas State Podiatry Board, as the sole investigators.

In this capacity, the Division has determined controlled substance diversion from operating rooms has resulted in serious consequences. Investigations have revealed discrepancies in required documentation and lack of compliance with controlled substance security requirements as they relate to controlled substance wastage.

Controlled substance diversion, including diversion of controlled substance wastage without forceable access, by persons not authorized to have access to the drugs, indicates a violation of Arkansas Department of Health Rules and Regulations Pertaining to Controlled Drugs. Such violations may expose the facility and the legitimate drug handler to civil liability. In addition, discrepancies are reported to the licensing boards, and may subject the license holder to disciplinary action by the respective licensing board.

Complaints of controlled substance diversion in

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# AMS Newsmakers

**Dr. James W. Bryan, IV**, of Little Rock, has recently completed the FAA Basic Aviation Medical Examiner Certification Course in Oklahoma City. Subsequently, he was designated as a Class II and III aviation Medical Examiner by G.J. Salazar, M.D., Regional Flight Surgeon, FAA Southwest Region.

**Dr. Michael L. Buffington**, of De Queen; **Dr. Roger E. Cagle**, of Paragould; **Dr. Jeffrey John Carfagno**, of Maumelle; **Dr. Joseph E. Hughes**, of Walnut Ridge; **Dr. Kerry F. Pennington**, of Warren; **Dr. Darrell G. Ragland**, of Jonesboro; **Dr. Charles H. Rodgers**, of Little Rock; **Dr. Bruce Schratz**, of North Little Rock; **Dr. William I. Wade Jr.**, of Little Rock, and **Dr. Joe H. Wharton**, of Warren, have been recertified as Diplomates of the American Board of Family Practice.

**Dr. Carlton L. Chambers**, of Harrison, was recently elected president of the Arkansas Academy of Otolaryngology.

**Dr. David L. Gibbons**, of Ozark, has completed continuing medical education requirements to retain active membership in the American Academy of Family Physicians.

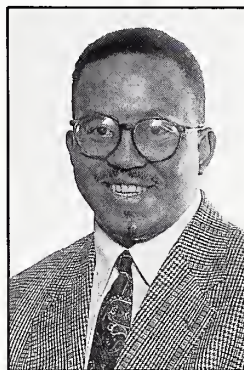
**Dr. Edward P. Hammons**, of Brinkley, has been named chairman of the East Arkansas Community College Board of Trustees.

**Dr. Donald R. Harris**, of Little Rock, has been named vice chief of CARTI's medical staff.

**Dr. Robert C. Landgren**, of Little Rock, has been named chief of staff for CARTI.

**Dr. Michael Mackey**, of Jonesboro, was selected as the Southern Medical Association's state councilor from Arkansas during the SMA's 88th annual scientific assembly recently held in Orlando.

**Dr. Keathern Scott Malone**, of Little Rock, was one of forty honorees at the American Medical Association's Burroughs Wellcome Co.



*Keathern Scott Malone, M.D.*

Leadership Award Program for resident physicians. He was honored for his contributions to community service.

**Dr. Kellye McElroy**, of Springdale, has been certified as a Diplomate of the American Board of Ophthalmology.

**Dr. Ben Pupsta**, of Clarendon, was presented with a plaque of appreciation recently by The Roc-Roe Men's Club for his many years of valued and loyal community service.

**Dr. John F. Redman**, of Little Rock, has been elected secretary of the South Central Section of the American Urologic Association.

**Dr. F. Hampton Roy**, of Little Rock, has been elected president-elect of the American College of Eye Surgeons. The organization promotes high quality standards in ophthalmic surgical care and, through its American Board of Eye Surgery, certifies ophthalmic surgeons in cataract/implant surgery and refractive surgery (incisional keratotomy). As president-elect, Dr. Roy will be involved with all activities of the organization, including coordination of educational programs related to quality control in the field of medicine.

**Dr. Ben Saltzman**, of Mountain Home, was recently elected to the American Cancer Society, Arkansas Division board of directors. The Arkansas Division board of directors currently consists of 58 members from around the state. These and other American Cancer Society volunteers in Arkansas help raise funds for cancer research, public education programs, professional education and service to cancer patients.

**Dr. R. Barry Sorrells**, a Little Rock orthopedic surgeon, performed a live televised knee replacement operation as part of a one-day medical seminar on February 13 in The Learning Center at Baptist Medical Center. An international audience included orthopedic surgeons from Australia, New Zealand and South Africa.

**Dr. R. Paul Tucker**, of Hot Springs, has been elected president of the Garland County Medical Society for 1995.



*Robert C. Landgren, M.D.*



# In Memoriam

---

## **Charles Eugene Crawley, M.D.**

Dr. Charles Eugene Crawley, of Cordova, died Thursday, January 26, 1995. He was 73.

He was a member of the Arkansas Medical Society Fifty Year Club.

Survivors include his wife, Nina; two sons, Dr. Charles Eugene (Gene) Crawley of Texarkana and Michael Edward Crawley, M.D. of Jonesboro; two daughters, Mrs. Don (Carolyn) Kessinger of Oxford, Mississippi and Mrs. Randy (Janet Lee) Hyde of Trumann; one sister, Verla Petit of Cordova, Tennessee; one brother, Henry Keen Crawley, M.D. of Lindale, Texas; eleven grandchildren and two great-grandchildren.

## **Roberta Stewart Peeler**

Roberta Stewart Peeler, of Jonesboro, died Tuesday, December 27, 1994. She was 81.

She was the widow of Dr. Malcolm Peeler. Survivors include one daughter, Dr. Karen Peeler; one son, Andy Peeler and two grandsons.

## **W. Duane Jones, M.D.**

Dr. W. Duane Jones, of Fort Smith, died Tuesday, February 7, 1995. He was 78.

He was a member of the Arkansas Medical Society Fifty Year Club.

Survivors include his wife, Bonnie Lucille; five daughters, Sylvia Kerr of Tulsa, Carolyn Rachel Laurenzana and Dr. Elaine Iles Wilson of Little Rock, June Ann (Sallye) Parker of Fort Smith and Katherine Louise Docherty of Winfield, Kansas; one son, William R. Townsend of Greenbrier; one brother, Rudard A. Jones of Urbana, Illinois; nine grandchildren; and four great-grandchildren.

## **Ishmael S. Reid, M.D.**

Dr. Ishmael S. Reid, of Memphis, died Monday, January 30, 1995. Reid, native of Pine Bluff and former member of the Arkansas Medical Society, was 46.

Survivors include his wife Vernetta and two daughters, Tanya and Catherine.



# Resolution

---

## **Robert C. Watson, M.D.**

Whereas, the membership of the Pulaski County Medical Society is deeply saddened by the recent death of one of its most esteemed members, Robert C. Watson, M.D.; and

Whereas, Dr. Watson was a loyal member of this Society for over fifty years, donating his time and energy to many positions of leadership including the office of President in 1963; and

Whereas, Dr. Watson earned the utmost respect and gratitude from his colleagues for his pioneering role as the first Neurological surgeon to practice in Arkansas; and

Whereas, his twenty-seven years of service as a volunteer professor at the University of Arkansas School of Medicine; his untiring work on behalf of numerous professional organizations; and his caring and sympathetic manner brought him the love and admiration of his students, his peers, and his patients alike;

Be it therefore resolved:

That, this resolution be adopted and placed in the permanent files of this Society; and

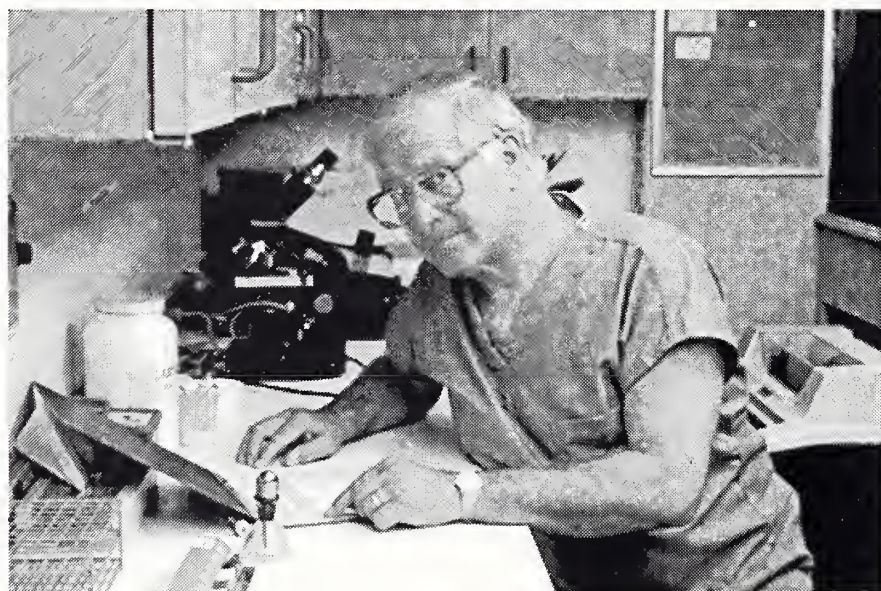
That, a copy of this resolution be mailed to Dr. Watson's family as a token of our sincere sorrow; and

That, a copy be forwarded to *The Journal of the Arkansas Medical Society* for publication.

Adopted:  
Board of Directors  
January 18, 1995

By Order of the Memorials Committee  
Samuel B. Welch, M.D.  
James W. Headstream, M.D.  
Bruce E. Schratz, M.D.

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# Things To Come

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## March 31-April 2

**Comprehensive HIV Management Update for Primary Care Physicians.** Palace Hotel in New York City. Developed in cooperation with the American Foundation for AIDS Research, and sponsored by the Center for Bio-Medical Communication. For more information, call (201) 385-8080.

## April 19-22

**Fifteenth Annual National Pediatric Infectious Disease Seminar.** Grand Hyatt Hotel, Washington, D.C. Sponsored by The University of Texas Southwestern Medical Center at Dallas, Eli Lilly and Company and the National Pediatric Infectious Diseases Foundation. For more information, call (317) 578-3075.

## April 22

**Clinical Pharmacology for the Practicing Physician: Current Issues in Drug Therapy.** Hotel Inter-Continental, New Orleans, Louisiana. Sponsored by the Section of Clinical Pharmacology and the Tulane University Medical Center Office of Continuing Education. For more information, call (504) 588-5466.

## April 28 - 30

**1995 Pediatric Update for Primary Care Physicians.** Westin Canal Place Hotel, New Orleans, Louisiana. Sponsored by the Departments of Pediatrics from Tulane University School of Medicine & Ochsner Medical Institutions, and Tulane Hospital for Children in cooperation with TUMC's Office of Continuing Education. For more information, call (504) 588-5466 or 1-800-588-5300.

## April 28 - 30

**Current Topics in Pathology: Liver, GI, Kidney Biopsy Pathology.** Westin Canal Place Hotel, New Orleans, Louisiana. Sponsored by Tulane University Medical Center, Department of Pathology and the TUMC, Office of Continuing Education. For more information, call (504) 588-5466 or 1-800-588-5300.

## April 28 - May 5

**54th Annual American Occupational Health Conference.** Sands Expo and Convention Center, Las Vegas, Nevada. Co-sponsored by the American College of Occupational and Environmental Medicine and the American Association of Occupational Health Nurses. For more information, call (708) 228-6850.

## May 1-3

**5th Annual New Orleans HIV/AIDS Update for the Primary Care Provider.** Sheraton Hotel, New Orleans, Louisiana. Sponsored by the Delta Region AIDS Education and Training Center, LSU Medical Center Schools of Medicine and Nursing, Tulane University Medical Center and Alton Ochsner Medical Foundation. Endorsed by New Orleans Nurses for AIDS Care. For more information, call (504) 568-3855.

## May 8-9

**10th National Conference on Prescription Medicine Information and Education.** The Sheraton Washington Hotel in Washington, DC. Sponsored by the National Council on Patient Information and Education. For more information, call (202) 347-6711.

## May 15-26

**6th Annual Tropical Health Update.** Tulane University Medical Center School of Public Health & Tropical Medicine. Sponsored by TUMC and the Office of Continuing Education. For more information, call (504) 588-5466 or 1-800-588-5300.

## May 17-20

**National Rural Health Association's Eighteenth Annual National Conference.** Hyatt Regency Hotel in Atlanta, Georgia. For more information, write to: National Rural Health Association, National Service Center, One West Armour Boulevard, Suite 301, Kansas City, Missouri, 64111.

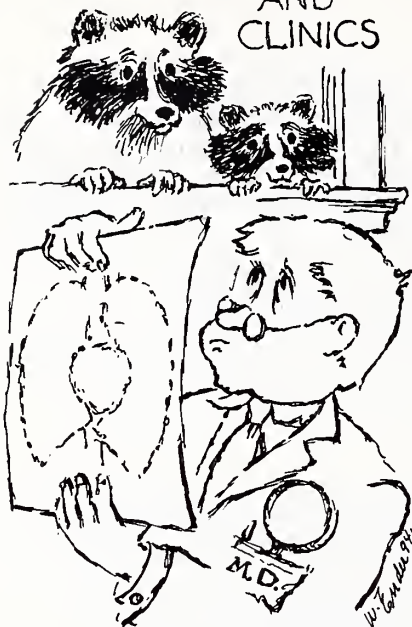
## May 24-26

**14th Annual Conference on Child Abuse and Neglect.** Red Lion Hotel, Sacramento, California. Sponsored by the Office of Continuing Medical Education and The University of California Davis School of Medicine and Medical Center. For more information, call (916) 734-5390.

## June 2

**Annual UC Davis Ophthalmology Symposium.** Vizcaya Pavilion, Sacramento, California. Sponsored by the Office of Continuing Medical Education and The University of California Davis School of Medicine and Medical Center. For more information, call (916) 734-5390.

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## Critical Care & Emergency Medicine Symposium

March 30-April 1, 1995, 7:00 a.m., Registration & Breakfast, The Arlington Resort Hotel and Spa in Hot Springs. Sponsored by UT of Memphis and presented by Milton D. Deneke, M.D. Category I credit: 11.5 hours. Fee: \$200.

## Genetics in Primary Health Care

April 6, 1995, 8:00 a.m. Registration, Holiday Inn West, Little Rock. Sponsored by UAMS and presented by J. Gerald Quirk, M.D. Category I credit: TBA. Fee: TBA.

## Strategies to Treat Frailty and Functional Dependency in the Elderly

April 12, 1995, 8:00 a.m. Registration, Excelsior Hotel, Little Rock. Sponsored by UAMS and presented by Drs. David Lipschitz & Ronnie Chernoff. Category I credit: TBA. Fee: \$75.00 - \$55.00 (VA Employees).

## 12th Annual W.W. Stead Chest Symposium

April 22-23, 1995, 7:30 a.m. Registration, Hilton Inn, Hot Springs. Sponsored by UAMS College of Medicine and presented by Marcia Erbland, M.D. Category I credit: TBA. Fee: TBA.

## Diabetes Update

April 29, 1995, 8:00 a.m. Registration, Holiday Inn West, Little Rock. Sponsored by UAMS College of Medicine. Category I credit: TBA. Fee: TBA.

## 17th Annual Family Practice Intensive Review

June 2-4, 1995, UAMS, Little Rock. Sponsored by UAMS College of Medicine. Presented by Dr. Steven Strode. Category I credit: TBA. Fee: \$300 for physicians and other health care professionals, and \$250 for residents through May 1. \$50 increase in fee thereafter.

## Recurring Education Programs

The following organizations are accredited by the Arkansas Medical Society to sponsor continuing medical education for physicians. The organizations named designate these continuing medical education activities for the credit hours specified in Category I of the Physician's Recognition Award of the American Medical Association.

### FAYETTEVILLE-VA MEDICAL CENTER

General Medical Topics, Thursdays, 12:00 noon, Auditorium, Bldg. 3  
Medical Grand Rounds, Thursdays, 12:00 noon, Conference Room, Bldg. 4

### HARRISON-NORTH ARKANSAS MEDICAL CENTER

Cancer Conference, 4th Thursday, 12:00 noon, Conference Room

### LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL

Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium  
Genetics Conference, Wednesdays, 12:00 noon, Sturgis Bldg., room 457  
Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom  
Pediatric Grand Rounds, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium  
Pediatric Neuroscience Conference, 1st Thursday, 8:00 a.m., 2nd Floor Classroom  
Pediatric Pharmacology Conference, 5th Wednesday, 12:00 noon, 2nd Classroom  
Pediatric Research Conference, 1st Thursday, 12:00 noon, 2nd Floor Classroom

### LITTLE ROCK-ST. VINCENT INFIRMARY MEDICAL CENTER

Cancer Conferences, Thursdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Chest Conference, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
General Surgery Grand Rounds, 1st Thursday, 7:00 a.m. Southwestern Bell/ARKLA Room. Light breakfast provided.  
Interdisciplinary AIDS Conference, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Joint Tumor Conference, 1st Wednesday, 12:00 noon, CARTI Auditorium. Lunch provided.  
Journal Club, Tuesdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Urology Grand Rounds, Tuesday, May 2, 5:30 p.m., Southwestern Bell/ARKLA room. Refreshments provided.

*Mental Health Conference*, 3rd Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
*Urology Grand Rounds*, 1st Tuesday, 5:30 p.m., Southwestern Bell/Arkla room. Refreshments provided

#### **LITTLE ROCK-BAPTIST MEDICAL CENTER**

*Anesthesiology Conference*, 3rd Thursday, 7:00 a.m., Conference Room 1  
*Breast Conference*, 3rd Thursday, 7:00 a.m., Conference Room 1  
*GI Conference*, 4th Friday, 11:30 a.m., Conference Room 1  
*Grand Rounds Conference*, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.  
*Pathology Conference*, 1st Tuesday, 3:00 p.m., Pathology Library  
*Pediatric Grand Rounds*, Tuesdays, 12:00 noon, Especially for Women Resource Room, 2nd floor/BMC. Category 1 credit available. Lunch provided.  
*Pulmonary Conference*, Tuesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.  
*Sleep Case Conference*, Fridays, 12:00 noon. Call BMC ext. 1902 for location. Lunch provided.

#### **MOUNTAIN HOME-BAXTER COUNTY REGIONAL HOSPITAL**

*Lecture Series*, 3rd Tuesday, 6:30 p.m., Education Building  
*Tumor Conference*, Tuesdays, 12:00 noon, Carti Boardroom

#### **NORTH LITTLE ROCK-BAPTIST MEMORIAL HOSPITAL**

*Chest & Problems Case Conference*, 3rd Wednesday, 12:00 noon, Assembly room. Lunch provided.  
*Grand Rounds*, 1st Monday (3rd, chest), 12:00 noon, Assembly room.

*As an organization accredited for continuing medical education by the Accreditation Council for Continuing Medical Education, the University of Arkansas for Medical Sciences certifies the following continuing medical education activities meet the criteria for Category I of the Physician's Recognition Award of the American Medical Association.*

#### **LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES**

*ACRC Oncology Forum*, Thursdays, 4:00 p.m., UAMS ACRC 2nd Floor Board room, 1.5 credits  
*Anesthesia Lecture Series*, Wednesdays, 4:00 p.m., UAMS Education Bldg., room G/110 A&B  
*Anesthesia Morbidity & Mortality Conference*, Tuesdays, 6:45 a.m.; 2nd & 4th Thursdays, 4:00 p.m., UAMS Education Bldg., room G/110 A&B  
*Arkansas Blood & Cancer Society Conference*, 6th Thursday, 7:30 p.m. Terrace Restaurant, Little Rock  
*Cardiology Clinical Conference*, Mondays, 4:00 p.m., UAMS, room 3S06  
*Cardiology Graphics Conference*, Wednesdays, 12:00 noon, UAMS, room 3S06  
*CARTI North Tumor Board Cancer Conference*, 2nd Wednesday, 12:00 noon, CARTI North, Searcy  
*Cardiothoracic Surgery Conference*, date, time, & location varies  
*Cardiothoracic Surgery Monthly Journals Club*, 4th Saturday, 9:30 a.m., UAMS Surgery Dept. Library, room 2S/28D  
*Cardiothoracic Surgery Morbidity & Mortality Conference*, 2nd Saturday, 9:30 a.m., UAMS Surgery Dept. Library, room 2S/28D  
*Child Psychiatry Update/Case Conference*, 3 Fridays per month, 1:00 p.m., ACH Child Study Center conference room  
*CME Outreach Program*, dates, times & locations vary  
*Emergency Medicine Didactic Conference 1*, Thursdays, 12:00 noon. UAMS Education Bldg., room G/110A&B  
*Emergency Medicine Didactic Conference 2*, Thursdays, 1:00 p.m., UAMS Education Bldg., room G/110A&B  
*Emergency Medicine Grand Rounds 1*, Tuesdays, 3:00 p.m., UAMS Education Bldg., room B/106A&B  
*Emergency Medicine Grand Rounds 2*, Tuesdays, 4:00 p.m., UAMS Education Bldg., room B/106A&B  
*Endocrinology Case Conference*, Fridays, 7:30 a.m., ACRC 3rd floor conference room  
*Family Practice Grand Rounds*, Tuesdays, 12:15 p.m., Family Practice Center, 6th and Elm  
*Gastroenterology Grand Rounds*, Thursdays, 4:00 p.m., Gastroenterology conference room, 3D29  
*GI/Radiology Conference*, Tuesdays, 8:00 a.m., UAMS Radiology conference room, M1/293  
*Hematology/Oncology Fellow's Forum*, Fridays, 8:15 a.m., ACRC Betsy Blass conference room  
*Interhospital Urology Grand Rounds*, 1st Tuesday, 5:30 p.m., St. Vincent Arkla/Bell room  
*LR Cancer Conference*, Wednesdays, 12:00 noon, UAMS ACRC conference room three times a month, CARTI Auditorium once a month  
*LR Vascular Conference*, time & date varies monthly, rotates between UAMS, SVI & BMC  
*Medicine Grand Rounds*, Thursdays, 12:00 noon, UAMS Education Bldg., room G/131A&B  
*Med/Path Conference*, 3rd or 4th Tuesday, 3:00 p.m., UAMS Shorey Bldg., room S/306  
*Medicine Journal Club*, alternate Thursdays, 7:30 a.m., ACC Medicine Clinic conference room  
*Medicine Research Conference*, Wednesdays (except 3rd), 4:30 p.m. UAMS Education Bldg. room B/135  
*Neurology-Neuropathology Conference*, Wednesday's, 4:00 p.m., Room 2E-142 at VAMC  
*Neurology-Neuradiology Conference*, Wednesday's, 5:15 p.m., Radiology Conference Room at UAMS  
*Neuroscience Clinical Grand Rounds*, Monday's, 3:00 p.m., Betsy Blass Conference Room, Arkansas Cancer Research Center  
*Neuroscience Conference (Basic)*, Mondays, 8:00 a.m., UAMS 7D33



*Neuroscience Conference (Basic & Clinical)*, Wednesdays, 4:00 p.m., UAMS 7C  
*Neurosurgery Journal Club*, 2nd & 4th Thursdays, 8:00 p.m., 2 credit hours  
*Neurosurgical Pathology Conference*, Thursdays, 4:00 p.m., VAMC-LR Neuropathology conference room, 2E141  
*OB/GYN Fetal Boards*, 2nd Fridays, 8:00 a.m., ACH Sturgis Bldg.  
*OB/GYN Grand Rounds*, Wednesdays, 7:45 a.m., UAMS Education Bldg., room G/131B  
*Ophthalmology Problem Case Conference*, Thursdays, 4:00 p.m., UAMS Jones Eye Institute, 2 credit hours  
*Ophthalmology Residency Morning Lectures*, Mondays, Wednesdays, Fridays, 7:30 a.m., UAMS Jones Eye Institute  
*Orthopaedic Basic Science Conference*, Tuesdays, 8:00 a.m., UAMS Education Bldg., room B/135  
*Orthopaedic Bibliography Conference*, Tuesdays, 8:30 a.m., UAMS Education Bldg., room B/135, 1.5 credit hours  
*Orthopaedic Fracture Conference*, Tuesdays, 7:30 a.m., UAMS Education Bldg., room B/135  
*Orthopaedic Grand Rounds*, Tuesdays, 10:00 a.m., UAMS Education Bldg., room B/135  
*Pathology Autopsy Conference*, Wednesdays, 12:00 noon, VAMC-LR Morgue  
*Psychiatry Grand Rounds*, Fridays, 11:00 a.m., UAMS Child Study Center Auditorium  
*Surgery Basic Sciences Conference*, 1st Saturday, 7:30 a.m., ACRC 2nd floor conference room  
*Surgery Grand Rounds*, Saturdays, 8:30 a.m., ACRC 2nd floor conference room  
*Surgery Morbidity & Mortality Conference*, Saturdays, 9:30 a.m., ACRC 2nd floor conference room  
*Surgery Resident Case Conference*, Saturdays (except 1st), 7:30 a.m., ACRC 2nd floor conference room  
*Trauma Morbidity & Mortality Conference*, date & time varies monthly, ACRC 2nd floor conference room  
*Urology Adult Subject Oriented Conference*, once monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Basic Sciences Conference*, 2nd Tuesdays, 5:00 p.m., VAMC-LR, 4D resident office  
*Urology Clinical Didactic Conference*, 3rd Tuesday, 5:00 p.m., VAMC-LR, 4D  
*Urology Formal Teaching (Grand) Rounds*, once or twice monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Journal Club*, once a month, 5:00 p.m., VAMC-LR, 4D  
*Urology Morbidity & Mortality Conference*, once monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Pathology Conference*, 4th Thursday, 5:00 p.m., VAMC-LR, 4D  
*Urology Pediatric Conference*, once monthly, 5:00 p.m., ACH Sturgis Bldg., Clinic 2  
*Urology Pre-op/Didactic Conference*, Mondays, 5:00 p.m., VAMC-LR, 4D  
*Urology Radiology Conference*, 1st Thursday, 5:00 p.m., UAMS, Radiology Department  
*Urology Teaching Conference*, Wednesdays, 5:00 p.m., VAMC-LR, 4D  
*Urology VA Teaching Rounds*, every Friday, 7:30 a.m., VAMC-LR, 4D  
*Uro-radiology Conference (Urologic Imaging)*, 1st Tuesdays, 5:00 p.m., UAMS Radiology conference room  
*VA Chest Conference (combined Surgical/Medical Chest Conference)*, Mondays, 12:15 p.m., VAMC-LR, room 2D109  
*VA Diagnostic Imaging Conference*, Monday-Thursday, 8:00 a.m., VAMC-LR Nuclear Medicine conference room, room 1D173  
*VA GRECC/Geriatric Research Conference*, Tuesdays, 4:00 p.m., VAMC-LR, room 2D109  
*VA Hematology/Oncology Conference*, Thursdays, 8:15 a.m., VAMC-LR Pathology conference room 2E142  
*VA Lung Cancer Conference*, Thursdays, 3:00 p.m., VAMC-LR, room 2E142  
*VA Medical Service Teaching Conference*, Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68 room 130  
*VA Medicine-Pathology Conference*, Tuesday, 2:00 p.m., VAMC-LR, room 2D109  
*VA Medicine Resident's Clinical Case Conference*, Fridays, 12:00 noon, VAMC-LR, room 2D08  
*VA Physical Medicine & Rehab Grand Rounds*, 4th Friday, 11:30 a.m., VAMC-NLR Bldg. 68, room 118 or Baptist Rehab Institute  
*VA Surgery Grand Rounds*, Thursdays, 12:45 p.m., VAMC-LR, room 2D109, 1.25 credit hours  
*VA Topics in Rehabilitation Medicine Conference*, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR Bldg. 68, room 118  
*VA Weekly Cancer Conference*, Monday, 3:00 p.m., VAMC-LR, room 2E-142  
*White County Memorial Hospital Medical Staff Program*, once monthly, dates & times vary, White County Memorial Hospital, Searcy

## EL DORADO-AHEC

*Behavioral Sciences Conference*, 1st & 4th Friday, 12:30 p.m., AHEC - South Arkansas  
*Chest Conference*, 3rd Wednesday, 12:30 p.m., Warner Brown Hospital  
*Dermatology Conference*, 1st Tuesdays and 1st Thursdays, AHEC - South Arkansas  
*GYN Conference*, 2nd Friday, 12:30 p.m., AHEC-South Arkansas  
*Internal Medicine Conference*, 1st, 2nd & 4th Wednesday, 12:30 p.m., AHEC-South Arkansas  
*Noon Lecture Series*, 2nd & 4th Thursday, 12:00 noon, AHEC - South Arkansas. Lunch provided.  
*Pathology Conference*, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas  
*Pediatric Conference*, 3rd Friday, 12:30 p.m., AHEC - South Arkansas  
*Pediatric Case Presentation*, 3rd Tuesday, 3rd Friday, AHEC - South Arkansas  
*Arkansas Children's Hospital Pediatric Grand Rounds*, every Tuesday, 8:00 a.m., AHEC - South Arkansas (Interactive video)  
*Pathology Conference*, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas  
*Obstetrics-Gynecology Conference*, 4th Thursday, 12:30 p.m., AHEC - South Arkansas  
*Surgical Conference*, 1st, 2nd & 3rd Monday, 12:30 p.m., AHEC - South Arkansas  
*Tumor Clinic*, 4th Tuesday, 12:30 p.m., AHEC - South Arkansas

## FAYETTEVILLE-AHEC NORTHWEST

*AHEC Teaching Conferences, Tuesdays & Wednesdays, 12:00 noon, Washington Regional Medical Center*

*AHEC Teaching Conferences, Fridays, 12:00 noon, Washington Regional Medical Center*

*AHEC Teaching Conferences, Thursdays, 7:30 a.m., Washington Regional Medical Center*

*Medical/Surgical Conference Series, 4th Tuesday, 12:30, Bates Medical Center, Bentonville*

*Primary Care Conferences, 1st & 3rd Mondays, 12:00, every Tuesday 7:30 a.m., Washington Regional Medical Center*

## FORT SMITH-AHEC

*Gastroenterology Conference, 3rd Tuesday every other month, 7:00 a.m., St. Edward Mercy Medical Center*

*Neuroradiology Conference, 3rd Wednesday, 12:00 noon, St. Edward Mercy Medical Center*

*Neuroradiology Conference, 1st Tuesday, 11:30 a.m., Sparks Regional Medical Center*

*Sparks Tumor Conference, Thursdays, 12:00 noon, Sparks Regional Medical Center*

*Tumor Conference, Mondays, 12:00 noon, St. Edward Mercy Medical Center*

## JONESBORO-AHEC NORTHEAST

*AHEC Lecture Series, 1st & 3rd Tuesday, 12:00 noon, Stroud Hall, St. Bernard's Regional Medical Center. Lunch provided.*

*Arkansas Methodist Hospital CME Conference, 7:30 a.m., Hospital Cafeteria, Arkansas Methodist Hospital, Paragould Chest Conference, 2nd Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.*

*Citywide Cardiology Conference, 3rd Thursday, 7:30 p.m., Jonesboro Holiday Inn*

*Clinical Faculty Conference, 5th Tuesday, St. Bernard's Regional Medical Center, Dietary Conference Room, lunch provided*

*Craighead/Poinsett Medical Society, 1st Tuesday, 7:00 p.m. Jonesboro Holiday Inn*

*Independence County Medical Society, 2nd Tuesday, 7:30 p.m., Batesville Country Club, Batesville*

*Interesting Case Conference, 4th Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.*

*Jackson County Medical Society, 3rd Thursday, 7:00 p.m., Newport Country Club, Newport*

*Kennett CME Conference, 3rd Monday, 12:00 noon, Twin Rivers Hospital Cafeteria, Kennett, MO*

*Methodist Hospital of Jonesboro CME Conference, 2nd Tuesday, 7:00 p.m., Cafeteria, Methodist Hospital of Jonesboro Neuroradiology Conference, 3rd Friday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.*

*Orthopedic Case Conference, June 23, 7:30 a.m., Board Room, Northeast Arkansas Rehabilitation Hospital.*

*Perinatal Conference, 2nd Wednesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.*

*Pocahontas CME Conference, 3rd Wednesday, 12:00 noon & 7:30 p.m., Randolph County Medical Center Boardroom*

*Tumor Conference, Thursdays, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.*

*Walnut Ridge CME Conference, 3rd & last Tuesday, 12:00 noon, Lawrence Memorial Hospital Cafeteria*

*White River CME Conference, 3rd Thursday, 12:00 noon, White River Medical Center Hospital Boardroom*

## PINE BLUFF-AHEC

*Behavioral Science Conference, 1st & 3rd Thursday, 12:00 noon, Jefferson Regional Medical Center*

*Chest Conference, 2nd & 4th Friday, 12:00 noon, Jefferson Regional Medical Center*

*Family Practice Conference, 1st & 4th Tuesday, 12:00 noon, Jefferson Regional Medical Center*

*Geriatrics Conference, 3rd Friday, 12:00 noon, Jefferson Regional Medical Center*

*Internal Medicine Conference, 2nd & 4th Wednesday, 12:00 noon, Jefferson Regional Medical Center*

*Obstetrics/Gynecology Conference, 2nd Tuesday, 12:00 noon, Jefferson Regional Medical Center*

*Orthopedic Case Conference, 2nd & 4th Thursday, 12:00 noon, Jefferson Regional Medical Center.*

*Pediatric Conference, 3rd Wednesday, 12:00 noon, Jefferson Regional Medical Center*

*Radiology Conference, 3rd Tuesday, 12:00 noon, Jefferson Regional Medical Center*

*Southeast Arkansas Medical Lecture Series, 4th Tuesday, 6:30 p.m., Pine Bluff County Club. Dinner meeting.*

*Surgery Conference, 1st Friday, 12:00 noon, Jefferson Regional Medical Center*

*Tumor Conference, 1st Wednesday, 12:00 noon, Jefferson Regional Medical Center*

## TEXARKANA-AHEC SOUTHWEST

*Chest Conference, every other 3rd Wednesday, 12:30 p.m., St. Michael Hospital*

*Neuro-Radiology Conference, 2nd & 4th Tuesday, 12:00 noon, Wadley Regional Medical Center*

*Residency Noon Conference, Mondays through Thursdays, 12:00 p.m., AHEC-Southwest Family Practice Clinic*

*Tumor Board, Fridays, except 5th Friday, 12:00 noon, Wadley Regional Medical Center & St. Michael Hospital*

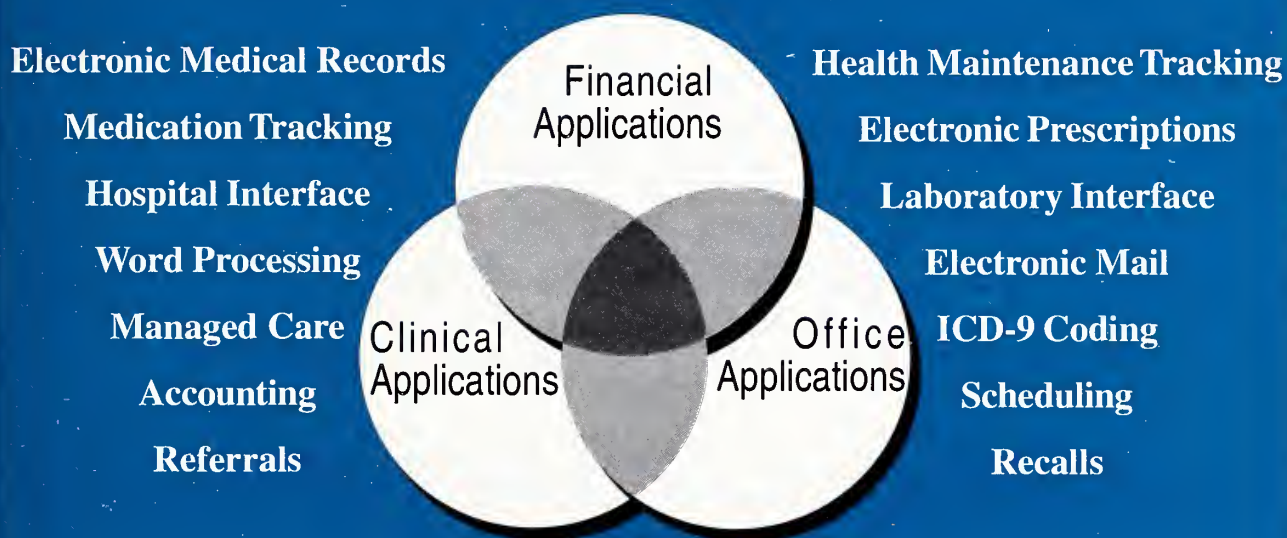
*Tumor Conference, every 5th Friday, 12:00 noon alternates between Wadley Regional Medical Center & St. Michael Hospital*





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### MANUSCRIPT STYLE

Author information should include titles, degrees, and any hospital or university appointments of the author(s). All scientific manuscripts must include an abstract of not more than 100 words. The abstract is a factual summary of the work and precedes the article. Manuscripts should be typewritten, double-spaced, and have generous margins. Subheads are strongly encouraged. The original and one copy should be submitted. Pages should be numbered. Manuscripts are not returned; however, original photographs or drawings will be returned upon request after publication. Manuscripts should be no longer than ten typewritten pages. Exceptions will be made only under most unusual circumstances.

Along with the typed manuscript, we encourage you to submit an IBM-compatible 5 1/4" or 3 1/2" diskette containing the manuscript in ASCII format. The manuscript on diskette must be in the same format as stated above. We will return the diskette upon request.

### REFERENCES

References should be limited to ten; if more than ten are listed, the author(s) may designate the ten most significant to be printed and readers will be referred to the author(s) for the complete list. References must contain, in the order given: name of author(s), title of article, name of periodicals with volume, page, month and year. References should be numbered consecutively in the order in which they appear in the text. Authors are responsible for reference accuracy.

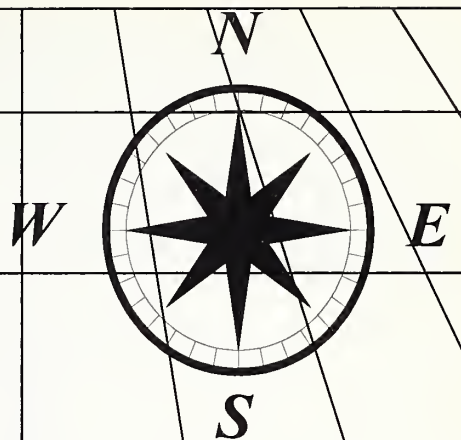
### ILLUSTRATIONS

Illustrations should be professionally drawn and/or photographed. Glossy black and white photos are preferred. They should not be mounted and should have the name of the author(s) and figure number penciled lightly on the back. An arrow should indicate the top of the illustration. In photographs in which there is any possibility of personal identification, an acceptable legal release must accompany the material. Up to four illustrations will be accepted at no charge to the author(s). If more than four are necessary, it is understood that the author(s) will be responsible for the reproduction costs.

### REPRINTS

Reprints may be obtained from *The Journal* office and should be ordered prior to publication. Reprints will be mailed approximately three weeks from publication date. For a reprint price list, contact Tina G. Wade, Managing Editor, at *The Journal* office. Orders cannot be accepted for less than 100 copies.





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# ***CHARTING THE COURSE***

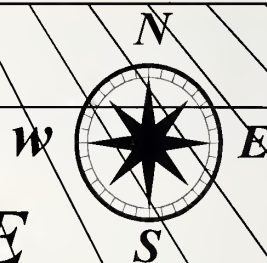
**ARKANSAS MEDICAL SOCIETY  
1995 CONVENTION**

**ARLINGTON HOTEL  
HOT SPRINGS, ARKANSAS  
MAY 4-6, 1995**

ARKANSAS MEDICAL SOCIETY

1995 ANNUAL CONVENTION

# CHARTING THE COURSE



\* *Arlington Hotel* \* *Hot Springs, Arkansas* \* *May 4-6, 1995*



## CONVENTION AGENDA

This meeting is designed primarily for Arkansas physicians concerned with health care issues that affect the practice of medicine. Clinic managers, medical students, residents and other allied health professionals will also benefit from the program and activities.

### Thursday, May 4, 1995

- 9:00 a.m. Golf Tournament  
*Contributed by Schering Corporation*
- 1:00 p.m. Registration Opens
- 1:00 p.m. "Evaluation and Management Coding and Documentation" Seminar  
Jo Ann Steigerwald, ART, CPC  
Southern Medical Association  
*Sponsored by St. Paul Companies*
- 2:00 p.m. Council Meeting
- 3:30 p.m. Welcome Reception  
*Sponsored by Boatmen's National Bank of Arkansas*  
*Exhibits Open*
- 5:00 p.m. First House of Delegates  
*Keynote Address:*  
Edward R. Annis, M.D.  
Miami Shores, Florida  
*Educational grant graciously provided by*  
*Freemyer Collection System*
- 7:00 p.m. Casino on the High Seas  
Dinner Buffet  
Dress is casual  
*Sponsored by the Southern Medical Association*

### Friday, May 5, 1995

- 7:30 a.m. Council Meeting
- 9:00 a.m. Continental Breakfast  
*Sponsored by First Commercial Bank*  
*Exhibits Open*
- 9:30 a.m. Reference Committees
- 10:45 a.m. First Feature Session  
"Battered Women Syndrome:  
Identifying & Treating Survivors"  
Dr. Lenore E. A. Walker  
Denver, Colorado
- 12:30 p.m. Shuffield Luncheon

*Contributed by The Doctor's Company*

- Shuffield Award & Special Presentation  
Shuffield Lecture  
Lee J. Stillwell  
American Medical Association  
Washington, D.C.
- 2:15 p.m. Afternoon Break  
*Exhibits Open*
- 3:30 p.m. Second Feature Session  
"Practice Parameters"  
Dr. Barry Chaiken  
Boston, Massachusetts
- 5:30 p.m. Blue Cross Blue Shield Reception

### Saturday, May 6, 1995

- 7:30 a.m. Council Meeting
- 8:00 a.m. Early Morning Refreshments  
*Sponsored by AMI National Park Medical Center*
- 8:45 a.m. Third Feature Session  
"Navigating Legislative Changes  
in the Practice of Medicine"  
Z. Lynn Zeno  
Arkansas Medical Society  
Little Rock, AR
- 10:30 a.m. Final House of Delegates  
*AMA Address*  
Thomas R. Reardon, M.D.  
AMA Board of Trustees  
Boring, Oregon
- 12:30 p.m. Fifty Year Club Luncheon
- 12:30 p.m. Arkansas Academy of Family Physicians  
and Arkansas Pathology Society
- 6:00 p.m. Hospitality Hour  
*Sponsored by CMS Therapies*
- 7:00 p.m. Inaugural Banquet
- 9:00 p.m. President's Reception & Dance  
*Entertainment: Center Stage Music*



# Arkansas Medical Society

## 1995 Convention Keynote Speakers

### Keynote Address

**Edward R. Annis, M.D.**, author of *Code Blue: Health Care in Crisis* and past president of the American Medical Association and the World Medical Association, will be the keynote speaker at the opening session, Thursday, May 4 at 5:00 p.m. He offers a comprehensive look at the free market alternative to the health care system that would restore the traditional doctor/patient relationship.



### Shuffield Lecture

**Lee J. Stillwell** of the American Medical Association will be the featured speaker at the Shuffield Luncheon on Friday, May 5 at 12:30 p.m. He has directed the Washington activities of the AMA since joining in 1987. His responsibilities include the oversight and direction of the AMA's corps of Congressional and Administration lobbyists and its press operations.

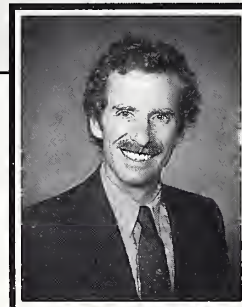


### 1st Feature Session

**Dr. Lenore E.A. Walker**, a licensed psychologist and President and Chief Executive Officer of Walker & Associates, a Denver based consulting firm providing clinical and forensic psychological services around the world, will address "**Battered Women Syndrome: Identifying & Treating Survivors**" at the First Feature Session on Friday, May 5 at 10:45 a.m.

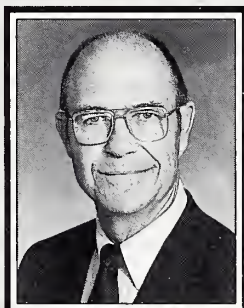
### 2nd Feature Session

**Barry Chaiken, M.D., M.P.H.**, Director for Clinical Marketing at GMIS, Inc., will address "**Practice Parameters**" Friday, May 5 at 3:30 p.m. With over twelve years experience in medical research, health care consulting, new business development, epidemiology and public health, he provides medical leadership and strategic planning support for GMIS products and services.



### 3rd Feature Session

**Z. Lynn Zeno**, AMS Director of Governmental Affairs, will update the membership on the activities of the 80th General Assembly on Saturday, May 6 at 8:45 a.m. In addition, he will discuss how legislative changes will affect the practice of medicine in the State of Arkansas. Insurance regulations, medical records and Medicaid were some of the issues discussed and acted upon by the state legislature.



### AMA Address

**Thomas R. Reardon, M.D.**, Secretary/Treasurer, Member of the AMA Board of Trustees, will give the keynote AMA address at the Final House of Delegates at 10:30 a.m. on Saturday, May 6. Dr. Reardon is a general practitioner from Portland, Oregon, and was elected secretary/treasurer of the AMA in 1994. He recently testified before the New Mexico senate committee against the "Death With Dignity Act." Read more about his testimony on page 577.

# 71st Alliance Annual Session

May 4-6, 1995  
Arlington Hotel  
Hot Springs, Arkansas

## AMS Alliance Meeting At a Glance

### *Thursday, May 4*

- 2:00 p.m. Pre-Convention Board Meeting
- 3:30 p.m. Welcome Reception
- 7:00 p.m. "Casino on the High Seas"

### *Friday, May 5*

- 7:30 a.m. Past President's Breakfast
- 8:30 a.m. Continental Breakfast
- 9:00 a.m. Alliance Opening General Session
- 10:45 a.m. AMS First Feature Session
- 12:30 p.m. Shuffield Lecture & Luncheon
- 2:15 p.m. Reconvene Opening General Session
- 3:30 p.m. AMS Second Feature Session
- 5:30 p.m. Blue Cross Blue Shield Reception

### *Saturday, May 6*

- 8:00 a.m. Early Morning Refreshments
- 9:00 a.m. Alliance Second General Session
- 12:30 p.m. Installation Luncheon & Awards
- 2:00 p.m. Post-Convention Board Meeting
- 6:00 p.m. AMS Hospitality Hour
- 7:00 p.m. AMS Inaugural Banquet
- 8:30 p.m. AMS President's Reception & Dance





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# General Information

## Registration and Fees

The convention registration desk will be located on the Mezzanine in the Arlington Hotel and will be staffed during the following times:

Thursday, May 4    1:00 p.m. - 5:00 p.m.  
Friday, May 5      7:30 a.m. - 4:30 p.m.  
Saturday, May 6    8:00 a.m. - 2:00 p.m.

No person will be admitted to any activity of the annual session without first registering. Upon checking in at the convention registration desk, you will receive a convention program, your name badge, tickets for meals and social functions, and other convention material.

	Pre-registration	On-site Registration
Member	\$75.00	\$90.00
Past President	\$55.00	\$70.00
Spouse	\$55.00	\$70.00
Clinic Manager	\$75.00	\$90.00
Non-member	\$90.00	\$125.00
Resident	\$5.00	\$10.00
Student	\$5.00	\$10.00
Spouse	\$5.00	\$10.00

Resident and Student fees do not include Inaugural Banquet tickets, which can be purchased at \$35.00 per person.

## Young Physician Seminar

### "Evaluation & Management, Coding & Documentation"

Member	\$10.00	\$15.00
Non-Member	\$20.00	\$25.00

## Cancellation Policy

All cancellations must be made in writing and received by April 26, to receive a refund. All refunds, minus a \$10 processing fee, will be mailed after the conference. No refunds will be given for cancellations after April 26. No refunds will be given on site.

## Exhibits

Commercial exhibits will be on display in the Exhibit Center at the Arlington Hotel. Dr. R. Jerry Mann, Annual Session chairman, urges all members to take the time to visit the displays. The exhibits are a part of the educational program of the convention and provide

members with the latest information on progress in pharmaceutical research, insurance, accounting systems, computers, investments, and other new products and services available. **Exhibit hours** are the following:

Thursday, May 4:    3:30 p.m. - 5:00 p.m.  
Friday, May 5:      9:00 a.m. - 10:30 a.m.  
                             2:15 p.m. - 3:30 p.m.

## Telephone Service

The Society will have a convention telephone at the registration desk during registration hours for your convenience. Call the **Arlington Hotel** at (501) 623-7771. You may leave this number with your office personnel in case of emergencies.

## Target Audience

This meeting is designed primarily for Arkansas physicians concerned with health care issues that affect the practice of medicine. Clinic managers, medical students, residents and other health care professionals will also benefit from this program.

## Program Objectives

- \*Give health care professionals the chance to network and exchange ideas.
- \*Update attendees on the trends, prospectives and challenges of health care reform.
- \*Explain the structure of medical practice within the managed care environment to include contracting, patient access and coordination of medical needs.
- \*Provide health care professionals with current and useful information about domestic violence and how to identify and treat survivors.
- \*Update attendees on new documentation guidelines released by HCFA and provide valuable information on proper documentation and coding of evaluation management services.

## Continuing Medical Education Credit

AMI National Park Medical Center is accredited by the Arkansas Medical Society to sponsor continuing medical education for physicians. AMI National Park Medical Center designates this continuing medical education activity for 7.25 credit hours in Category I of the Physicians Recognition Award of the American Medical Association.



# 119TH AMS ANNUAL SESSION REGISTRATION FORM

ARLINGTON HOTEL HOT SPRINGS, ARKANSAS MAY 4-6, 1995

## Step 1:

Please complete the personal information.

Dr. \_\_\_\_\_

Mr./Ms./Mrs. \_\_\_\_\_

Clinic Manager \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_

County \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

For appropriate meal count, please indicate the number attending:

\_\_\_\_\_ #Attending Shuffield Luncheon \_\_\_\_\_ #Attending Inaugural Banquet

## Physician/Spouse/Guest/Clinic Manager Plan

### Package Plan Includes:

- \*Shuffield Luncheon
- \*Entrance into the Exhibit Center and Exhibit Center Breaks
- \*CME Hours
- \*Inaugural Banquet

### PRE-PAID:

Member	\$75
Past President	\$55
Spouse/Guest	\$55
Clinic Manager	\$75
Non-Member	\$90

### ON-SITE:

Member	\$90
Past President	\$70
Spouse/Guest	\$70
Clinic Manager	\$90
Non-Member	\$125

Total: \_\_\_\_\_

## Resident/Medical Student/Spouse/Guest Plan

### Package Plan Includes:

- \*Shuffield Luncheon
- \*Entrance into the Exhibit Center and Exhibit Center Breaks
- \*CME Hours

### PRE-PAID\*:

Member	\$5
Spouse/Guest	\$5
Non-Member	\$10

### ON-SITE\*:

Member	\$10
Spouse/Guest	\$10
Non-Member	\$20

\*Does not include Inaugural Banquet Ticket, but can be purchased separately

Total: \_\_\_\_\_

## Young Physicians' Seminar

### Evaluation & Management Coding & Documentation

### Package Plan Includes:

- \*Seminar and workshops
- \*Thursday's Exhibits

### PRE-PAID:

Member	\$10
Non-Member	\$20

### ON-SITE:

Member	\$15
Non-Member	\$25

Total: \_\_\_\_\_

## Alliance Plan

### Package Plan Includes:

- \*Alliance Installation Lunch

### PRE-PAID:

Member	\$20
--------	------

### ON-SITE:

Member	\$25
--------	------

Total: \_\_\_\_\_

## Golf Tournament

Please List Handicap: \_\_\_\_\_ Cost: \$55 Per Person Total: \_\_\_\_\_

## Step 3:

Please mail form with payment to:

Arkansas Medical Society  
P.O. Box 5776  
Little Rock, AR 72215-5776  
(501) 224-8967 (800) 542-1058

TOTAL AMOUNT ENCLOSED: \_\_\_\_\_

Did you add the appropriate amount to include member, spouse/guest and alliance activities?

## PRIMARY CARE PHYSICIANS

The Little Rock VA Medical Center has openings for Primary Care Physicians to work primarily in Ambulatory Care. Physicians trained in Internal Medicine and Family Practice, who have interest in providing primary care to a defined set of patients in collaboration with physician extenders, are encouraged to inquire. Excellent opportunities are available for continuing education and for teaching of students and house staff.

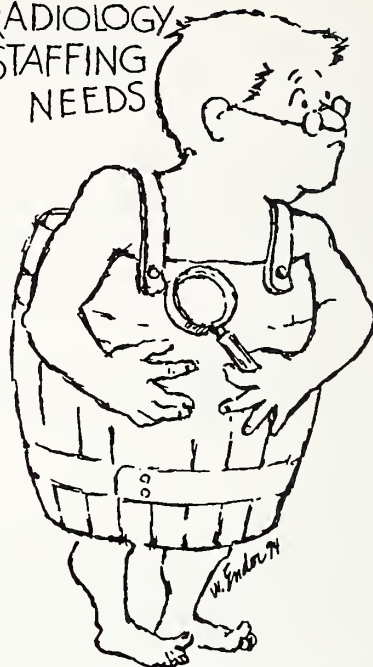
Competitive remuneration, generous fringe benefits, and excellent working conditions. Contact Joseph H. Bates, M.D., Chief, Medical Service, John L. McClellan Memorial Veterans Hospital, 4300 West 7th Street, Little Rock, AR 72205, telephone (501)-660-2029.



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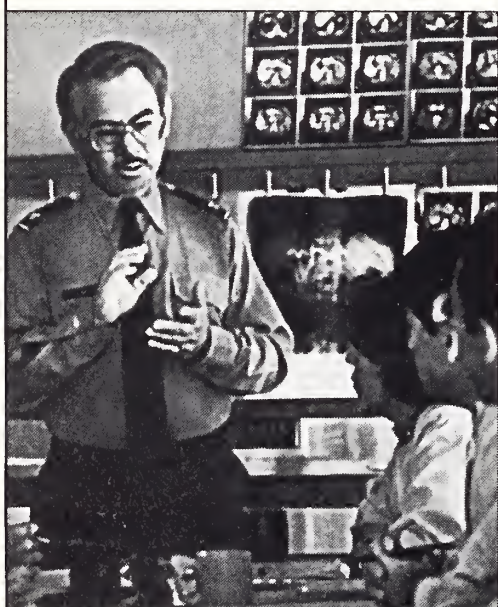
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# --- Young Physicians' Seminar ---

## **"Evaluation & Management Coding & Documentation"**

The Young Physicians' Committee is hosting a seminar on Thursday, May 4 at 1:00 p.m. to help physicians navigate their way through evaluation and management code structures and new documentation guidelines released by HCFA. The seminar is sponsored by **The St. Paul Companies**.

The presentation will be led by Jo Ann Steigerwald, ART, CPC, of the Southern Medical Association. It is

geared specifically for physicians and promises to include valuable information on proper documentation and coding of evaluation and management services to:

1. Prevent potential loss of revenue due to undercoding.
2. Lessen the risk of audit fines and penalties due to improper documentation.

*See ad on page 538 for more information.*

# --- Specialty Meetings ---

**Arkansas Academy of Family Physicians** will have a luncheon meeting on Saturday, May 6 from 12:30 p.m. - 2:00 p.m. in the Apollo Room/7th Floor of the Arlington Hotel. Physicians of Internal Medicine and Pediatrics are invited to attend.

**Arkansas Pathology Society** will have a meeting on Saturday, May 6 from 12:30 p.m. - 2:00 p.m. in the Mars Room/4th Floor of the Arlington Hotel.

# --- Fifty Year Club Luncheon ---

The Society will host a luncheon for members of the Fifty Year Club at 12:30 p.m., Saturday, May 6 at the Arlington Hotel in Hot Springs. Physicians eligible for the Fifty Year Club this year are:

C. Stanley Applegate, Jr., Springdale  
Clark M. Baker, Paragould  
Roger B. Bost, Little Rock  
Arnold R. Brown, Searcy  
Joseph D. Calhoun, Little Rock  
David B. Cheairs, Little Rock  
Charles D. Cyphers, El Dorado  
Ralph A. Downs, Little Rock  
W. Martin Eisele, Hot Springs  
A. J. Forestiere, Harrisburg  
John M. Fulmer, Little Rock  
Fred O. Henker, III., Little Rock  
Joseph P. Hickey, Little Rock

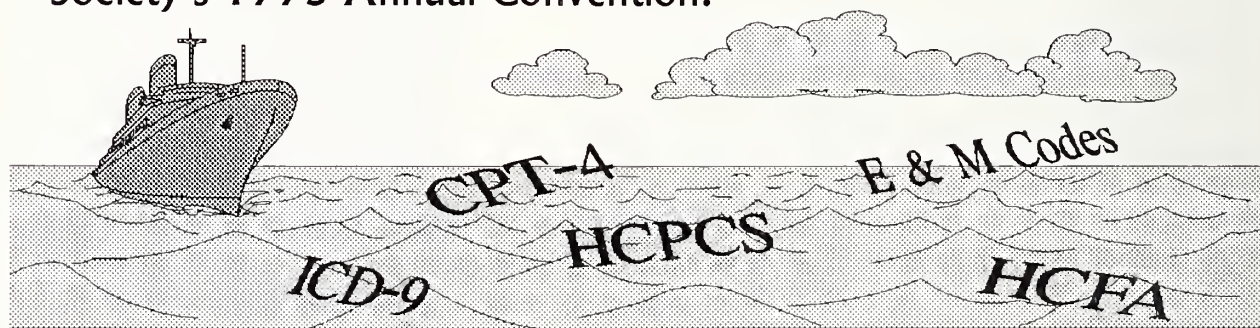
Gaither C. Johnston, Hot Springs  
N. B. Kersh, Malvern  
Louis O. Lambiotte, Fort Smith  
Charles P. McCarty, Memphis, TN  
Donald McMinimy, Fort Smith  
Edwin F. Price, Jonesboro  
Norman Pullman, Wichita, KS  
Glenn P. Schoettle, West Memphis  
Herd E. Stone, Jr., Holly Grove  
Robert J. Thompson, Fort Smith  
C. E. Tommey, El Dorado  
Gerald N. Weiss, Little Rock



# Top Ten Reasons to Attend the Young Physician's Seminar

## Evaluation and Management Coding and Documentation

10. It's only \$10 for members, \$20 for non-members.
9. You will meet and network with other Young Physicians from around the state.
8. You will have the opportunity to practice what you've learned.
7. You will learn about the new HCFA guidelines for Evaluation and Management coding.
6. You can decrease your risk of audit fines and penalties by learning how to correctly document your services and code correctly.
5. You will hear an excellent speaker, Jo Ann Steigerwald, ART, CPC, from the Southern Medical Association.
4. You will learn ways to help increase your bottom line without increasing your work load.
3. Admission to the Exhibit Hall and Welcome Reception (on Thursday only) is included with registration to the seminar.
2. This seminar is FOR YOU! It is geared specifically for physicians.
1. While you are in Hot Springs you can also attend the Arkansas Medical Society's 1995 Annual Convention!



Join the Young Physicians Committee as we learn to navigate our way through Evaluation and Management Coding and Documentation. Thursday, March 4, 1:00 p.m. to 3:00 p.m., Arlington Hotel, Hot Springs. For details call the AMS office at 501-224-8967 or 1-800-542-1058.



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# House of Delegates

---

The opening session of the House of Delegates of the Arkansas Medical Society will begin at 5:00 p.m. on Thursday, May 4. Speaker of the House, John Crenshaw, M.D., will preside.

All items of business to be considered by the House must either be printed in the convention issue of *The Journal* or submitted to the headquarters office in writing 20 days prior to the meeting. Any new business proposed during the session of the House of Delegates must have a two-thirds vote of attending delegates for introduction.

Items of business will be referred by the Speaker of the House of Delegates to one of two reference committees. Open hearings on those items of business will be held by the reference committees on Friday, May 5 at 9:30 a.m. All members of the Society are welcome to attend the meetings of the reference committees and to express views on the various reports, resolutions, etc.

The following will be seated at the House of Delegates meeting during the 1995 Annual Session:

## Officers (all are Ex-officio Members)

John Crenshaw, Pine Bluff, Speaker  
James M. Kolb, Jr., Russellville, President  
James Armstrong, Ashdown, President-elect  
Scott Dinehart, Little Rock, Vice President  
Charles Rodgers, Little Rock, Secretary  
Lloyd Langston, Pine Bluff, Treasurer

## Councilors

District 1: Don Vollman, Jonesboro  
Dwight Williams, Paragould  
District 2: Lloyd Bess, Batesville  
Michael Moody, Salem  
District 3: Hoy B. Speer, Jr., Stuttgart  
P. Vasudevan, Helena  
District 4: Anna Redman, Pine Bluff  
Paul Wallick, Monticello  
District 5: Wayne Elliott, El Dorado  
Robert Nunnally, Camden  
District 6: George Finley, Texarkana  
District 7: Thomas Hollis, Hot Springs  
Robert McCrary, Hot Springs  
District 8: David Barclay, Little Rock  
Joseph Beck, Little Rock  
Paul Cornell, Little Rock  
William Jones, Little Rock  
Charles Logan, Little Rock  
(Chairman)  
Jerry Mann, Jacksonville  
J. Mayne Parker, Little Rock  
John L. Wilson, Little Rock  
District 9: David Davis, Fayetteville  
Robert Langston, Harrison  
Janet Titus, Fayetteville  
District 10: Gerald Stolz, Russellville

District 10: Paul Wills, Fort Smith  
Morton Wilson, Fort Smith

## Past Presidents (ex-officio)

A. E. Andrews, Jr., Texarkana  
C. Stanley Applegate, Jr., Springdale  
Glen F. Baker, Little Rock  
John P. Burge, Lake Village  
Asa A. Crow, Paragould  
C. Randolph Ellis, Malvern  
Ross E. Fowler, Harrison  
Charles R. Henry, Sr., Little Rock  
Morris M. Henry, Fayetteville  
John M. Hestir, DeWitt  
William N. Jones, Little Rock  
W. Ray Jouett, Little Rock  
Albert S. Koenig, Jr., Fort Smith  
W. Payton Kolb, Little Rock  
Kemal E. Kutait, Fort Smith  
J. Larry Lawson, Paragould  
Ken Lilly, Fort Smith  
C. C. Long, Fort Smith (Honorary)  
Joseph A. Norton, Little Rock  
Ben N. Saltzman, Mountain Home  
Purcell Smith, Jr., Little Rock  
H. W. Thomas, Dermott  
T. E. Townsend, Pine Bluff  
George Warren, Little Rock  
James R. Weber, Jacksonville  
Charles F. Wilkins, Jr., Russellville  
John P. Wood, Mena  
George F. Wynne, Warren

*Ex-officio members shall have the power of voting on all subjects except the election of officers.*

## Delegates for 1995 as submitted by county:

County	Delegate	Alternate Delegate	County	Delegate	Alternate Delegate
Arkansas (1)			Pope (3)	D. B. Allen	James Adametz
Ashley (1)	Barry Thompson	Luis Garcia	Pulaski (37)	Ray Biondo	Brad Baltz
Baxter (2)	Robert Baker			Bob Cogburn	
	Peter MacKercher			Michael Cope	Joe Buford
Benton (4)				David Coussens	Roger Clark
Boone (1)	Carlton Chamber	Jim Crider		Philip Deer, III	Byron Curtner
Bradley (1)	Joe Wharton	Kerry Pennington		Marlon Doucet	Gilbert Dean
Carroll (1)				Thomas Eans	Sidney Eudy
Chicot (1)				Jim English	Jay Flaming
Clark (1)	Noland Hagood			Charles Fitzgerald	Eric Fraser
Cleburne (1)	Jerry Thomas	Mike Barnett		Cynthia Frazier	David Gilliam
Columbia (1)				Fred Henker	Lawson Glover
Conway (1)				Reid Henry	James Hagler
Craighead/Poinsett (7)	Terrance Braden	Dennis Parten		Steven Hodges	Ed Hankins
	Tim Dow			Thomas Jansen	Thomas Hart
	David Pyle			Anthony Johnson	T. S. Harris
	David Silas			Carl Johnson	
	Joe Stallings			Gail Jones	Tim Hodges
	Don Vollman			David King	Jerry Holton
	Joe T. Wilson			Dean Kumpuris	Harold Hutson
Crawford (1)				Marvin Leibovich	Ben Johnson
Crittenden (2)				Steve Magie	Dianne Johnson
Cross (1)	Robert Hayes	Willard Burks		Judy McDonald	John Jones
Dallas (1)	Don Howard	Robert Spears		Fred Nagel	Karen Kelly
Desha (1)				George Norton	
Drew (1)	Harold Wilson	Jeff Reinhart		Debra Owings	Keith Mooney
Faulkner (2)	Randal Bowlin	John Smith		Harold Purdy	Jim Morse
	Ben Dodge	Phillip Stone		Carl Raque	David Mumme
Franklin (1)	David Gibbons			John Redman	Terrance Oddson
Garland (6)	R. Paul Tucker	W.C. Hitt, Jr.		Ashley Ross	
	James M. Arthur			Ted Saer	David Pope
	Fred Heinemann	Kevin Hale		Bruce Schratz	Michael Roberson
	Gopakumar Maruthur	Tom Wallace		Kemp Skokos	Frank Sipes
		Eugene Shelby		William Steele	Claudia Tolleson
	Thomas Cofer	Timothy Sloand		Duane Velez	
Grant (1)	Clyde Paulk			Samual Welch	
Greene/Clay (1)	Roger Cagle	Darrell Bonner		Paul Zelnick	
Hempstead (1)	Lowell Harris	Mike Finley	Randolph (1)	Michael Schmidt	Ralph Cash
Hot Spring (1)	Absalom H. Tilley	John Lumb	Saline (2)	Joe Martindale	Donald Harper
Howard/Pike (1)				Randy Ennen	Paul Anderson
Independence (2)	William Waldrip	Jeff Angel	Sebastian (11)	R. Cole Goodman	Jimmie Atkins
	John R. Baker	Rick Van Grouw		Peter Irwin	Allen Beachy
Jackson (1)	Mufiz Chauhan			Greg Jones	Mike Berumen
Jefferson (4)	Simmie Armstrong			Robert Knox	William Holmes
	Sue Frigon			John Lange	David Hunton
	David Jacks			Jack Magness	David McClanahan
	John Lytle			Eugene Still	Steve Nelson
	Don Pennington	Richard McKelvey		John Swicegood	Claire Price
Johnson (1)	Bradley Harbin			John Wells	Eric Taft
Lafayette (1)			Sevier (1)		
Lawrence (1)			St. Francis (1)		
Lee (1)			Tri-County (1)	Griffin Arnold	Wayne Elliott
Little River (1)	Joe G. Shelton		Union (2)	Gary Bevill	Robert Tommey
Logan (1)	John R. Williams			Allan Pirniquie	Gerald C. Pearce
Lonoke (1)	Leslie Anderson		Van Buren (1)	John A. Hall	
Medical Student	Mariette Turner		Washington (7)	David Davis	
Miller (3)	Joseph Robbins	F. E. Joyce		Curtis Hedberg	
	Herbert Wren			Anthony Hui	
	Stanley Collins			William McGowan	
Mississippi (1)	Joe V. Jones	Richard Hester		William Nowlin	
Monroe (1)				Danny Proffitt	
Nevada (1)				Janet Titus	
Ouachita (1)	William Dedman	Lawrence Braden	White (2)		
Phillips (1)	Francis Patton	Robert Miller	Woodruff (1)		
Polk (1)	Thomas Tinnesz	David Fried	Yell (1)	James Maupin	Gene Ring



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## First Meeting, House of Delegates

5:00 p.m., Thursday, May 4  
John Crenshaw, M.D., Speaker

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1. Call to order
2. Presentation of the Colors
3. Welcome to Hot Springs  
Mayor of Hot Springs  
Miss Hot Springs
4. Introduction of guests:  
Mrs. Susan Paddock, Field Director  
American Medical Association Alliance  
Mrs. Jan Meyer, President-elect  
Southern Medical Association Auxiliary  
Mrs. Mary Ann Stallings, President  
Arkansas Medical Society Alliance, Jonesboro  
Mrs. Evelyn Thomas, President-elect  
Arkansas Medical Society Alliance, Heber Springs
5. Adoption of minutes of the 118th Annual Session as published in the June 1994 issue of *The Journal of the Arkansas Medical Society*.
6. Memorials
7. Presentations
8. Old Business
9. New Business  
All reports, resolutions, and other items of business received by the headquarters office 20 days prior to the meeting shall be included in the agenda. Any items of business received after March 18, must have two-thirds consent of attending delegates before introduction. All items will be referred to reference committees.
10. Announcement of vacancies on State Boards:  
Arkansas State Board of Health (Third Congressional, Sixth Congressional & Member-at-Large [2 positions])  
Arkansas State Medical Board (Member-at-Large position)
11. Address by Edward R. Annis, M.D.
12. Recess until Saturday

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## Final Meeting, House of Delegates

10:30 a.m., Saturday, May 6  
John Crenshaw, M.D., Speaker

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1. Call to order
2. Election of officers. Nominations as submitted by the Nominating Committee:  
**President-elect:**  
John Crenshaw, M.D., Pine Bluff  
**Vice President:**  
Joe V. Jones, M.D., Blytheville  
**Treasurer:**  
Lloyd Langston, M.D., Pine Bluff  
**Secretary:**  
Michael Moody, M.D., Salem  
**Speaker of the House:**  
Anna Redman, M.D., Pine Bluff  
**Vice Speaker of the House:**  
Kevin Beavers, M.D., Russellville  
**Councilors:**  
**District #1:**  
Joe Stallings, M.D., Jonesboro  
**District #2:**  
Lloyd Bess, M.D., Batesville  
**District #3:**  
Hoy Speer Jr., M.D., Stuttgart  
**District #4:**  
Anna Redman, M.D., Pine Bluff  
**District #5:**  
Wayne Elliott, M.D., El Dorado  
**District #6:**  
Michael Young, M.D., Prescott  
**District #7:**  
Thomas Hollis, M.D., Hot Springs  
**District #8:**  
Joesph Beck II, M.D., Little Rock  
Paul Cornell, M.D., Little Rock  
William N. Jones, M.D., Little Rock  
Charles Logan, M.D., Little Rock  
Mayne Parker, M.D., Little Rock  
**District #9:**  
David Davis, M.D., Fayetteville  
**District #10:**  
Paul Wills, M.D., Fort Smith  
**Delegates to the American Medical Association (Term 1/1/96 - 12/31/97):**  
James Weber, M.D., Jacksonville

*continued on next page*

*Final Meeting, House of Delegates continued from previous page*  
**Alternate Delegates to the American Medical Association (Term 1/1/96 - 12/31/97):**

- Larry Lawson, M.D., Paragould
3. Address by 1994/95 President of the Arkansas Medical Society, James M. Kolb, Jr., M.D.
  4. Reports of Reference Committees:  
Committee #1  
Committee #2
  5. Report of the Council:  
Charles Logan, M.D., Chairman  
(Report covers meetings of the Council held during the annual session.)
  6. Address by the AMA  
Thomas R. Reardon, M.D.  
Boring, Oregon
  7. New Business:  
Announcement of nominees for the Arkansas State Board of Health and the Arkansas State Medical Board.  
Other new business

## State Board Vacancies

### Arkansas State Board of Health

A vacancy will occur December 31, 1995, in the Third and Sixth Congressional Districts of the Arkansas State Board of Health. Two vacancies will occur in the Member-at-Large positions, one on July 31, 1995 and one on December 31, 1995. Members from the counties in the third and sixth district and members of the Nominating Committee, who vote on the Member-at-Large positions, are urged to meet immediately following the adjournment of the House of Delegates on Thursday to vote for nominees. The term of office is four years. Nominations should be reported to Kay Waldo, Director of Administrative Services, immediately following the caucuses (three nominations are required).

**THIRD CONGRESSIONAL DISTRICT:** Ken Lilly, M.D., of Fort Smith is currently serving the term which will expire in December 31, 1995. Dr. Lilly is eligible to succeed himself.

Counties in the Third Congressional District include Baxter, Benton, Boone, Carroll, Crawford, Franklin, Johnson, Logan, Madison, Marion, Newton, Scott, Searcy, Sebastian, Van Buren and Washington.

**SIXTH CONGRESSIONAL DISTRICT:** Howard Harris, M.D., of Dumas is currently serving the term which will expire in December 31, 1995. Dr. Harris is eligible to succeed himself.

Counties in the Sixth Congressional District include Arkansas, Chicot, Cleveland, Dallas, Desha, Drew, Garland, Grant, Hot Spring, Jefferson, Lincoln, Lonoke and Saline.

**MEMBER-AT-LARGE:** Robert D. Miller, M.D., of Helena, is currently serving a term as Member-at-Large which will expire December 31, 1995. Dr. Miller is eligible to succeed himself. Michael Moody, M.D., of Salem, is currently serving a term as Member-at-Large which will expire July 31, 1995. Dr. Moody is eligible to succeed himself.

### Arkansas State Medical Board

A vacancy will occur December 31, 1995, in the Member-at-Large position of the Arkansas State Medical Board. The term of office will be for eight years. Members of the Nominating Committee are urged to meet immediately following the adjournment of the House of Delegates on Thursday to vote for nominees. Nominations should be reported to the Society personnel immediately following the caucuses (three nominations are required).

**MEMBER-AT-LARGE:** Linda McGhee, M.D., of Fayetteville, is currently serving the term which will expire, December 31, 1995. Dr. McGhee is eligible to succeed herself.

### Meetings of the Council

The Council will meet at the following times:

Thursday, May 4	2:00 p.m.
Friday, May 5	7:30 a.m.
Saturday, May 6	7:30 a.m.

### Reference Committees

Reference Committees are appointed by the Speaker of the House of Delegates to consider the various reports and resolutions. Reports published in this issue of *The Journal*, as well as any reports and resolutions presented at the first meeting of the House on May 4, will be referred by the Speaker to the reference committees. The committees will hold open hearings at 9:30 a.m. on Friday, May 5. After the hearings, the reference committees will hold executive sessions for the purpose of preparing recommendations and reports for the House of Delegates. Reports of the Reference Committees will be acted upon by the House of Delegates at the Saturday session.

### Reference Committee Orientation

There will be a meeting of all reference committee members on Friday, May 5 at 9:00 a.m. in Conference Room C of the Arlington Hotel. The meeting will be to familiarize the reference committees with the rules, procedures and writing of the reference committee reports.



## Reference Committee Agendas

### Reference Committee #1

Conference Center A

9:30 a.m., Friday, May 5, 1995

Roger Cagle, M.D.

Reference Committee Chairman

#### Agenda

1. **Annual Session Committee**  
*R. Jerry Mann, M.D., Chairman*
2. **Arkansas Health Care Access Foundation**  
*Harold Hedges, M.D., President*
3. **Arkansas Medical Society 1995 Budget**  
*Dwight Williams, M.D., Chairman*
4. **Executive Vice President Report**  
*Ken LaMastus, CAE*
5. **Ouachita County Medical Society**  
*Robert H. Nunnally, M.D., Secretary*
6. **Report of the Council**  
*Charles W. Logan, M.D., Chairman*
7. **Tri-County Medical Society**  
*George W. Jackson, M.D., Secretary/Treasurer*
8. **Young Physicians' Committee**  
*Anna Redman, M.D., Chairman*

### Reference Committee #2

Conference Center C

9:30 a.m., Friday, May 5, 1995

Steve Magie, M.D.

Reference Committee Chairman

#### Agenda

1. **AMS Management Company**  
*Janell Mason, Chief Operating Officer*
2. **Arkansas Department of Health**  
*Sandra Nichols, M.D., Director*
3. **Arkansas State Medical Board**  
*Peggy Pryor Cryer, Executive Secretary*
4. **CME Accreditation Committee**  
*Steve Strode, M.D., Chairman*
5. **Medical Education Foundation for Arkansas**  
*Martin Eisele, M.D., President*
6. **Medical Services Review Committee**  
*John Crenshaw, M.D., Chairman*
7. **Physicians' Health Committee**  
*Joe L. Martindale, M.D., Chairman*
8. **Pulaski County Medical Society**  
*Eighth Councilor District*  
*Fred Reddoch, Executive Director*

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# Memorials

*Members of the Arkansas Medical Society and Alliance who have died during this past year will be remembered during the opening House of Delegates beginning at 5:00 p.m., Thursday, May 4 in Conference Room C of the Arlington Hotel. Members to be honored are:*

## ***Society Members***

Walter M. Bond, Waverly, Ohio  
Robert G. Carnahan, Little Rock  
Samuel L. Cornwell, Clarendon, Texas  
Marion S. Craig, Little Rock  
Charles E. Crawley, Cordova, Tennessee  
John L. Dedman, Jr., Camden  
David E. Ducker, Salem  
Tom L. Dunn, Hampton  
Samuel Z. Faier, Fort Smith  
William B. Harrell, Texarkana  
Robert L. Henry, Little Rock  
Robert A. Hoagland, Dumas  
Harlan C. Holmes, Little Rock  
Morris A. Jackson, Little Rock  
Milton C. John, Stuttgart  
W. Duane Jones, Fort Smith  
Leeman H. King, Hot Springs

Mason G. Lawson, Little Rock  
Max F. McAllister, Harlingen, Texas  
Max J. Mobley, Russellville  
Mahlon D. Ogden, Little Rock  
Walter H. O'Neal, Little Rock  
Nathan L. Poff, Heber Springs  
Oliver C. Raney, Harrison  
Ishmael S. Reid, Memphis, Tennessee  
Nicholas W. Riegler, Little Rock  
Wayne L. Rockwell, Leavenworth, Kansas  
Frances C. Rothert, Hot Springs  
James T. Smith, Paris  
Nathan E. Strickland, Batesville  
Orion H. Stuteville, Marco Island, Florida  
Frank G. Thibault, Sr., Benton  
William D. Thornton, Texarkana, TX  
C. Robert Watson, Little Rock

## ***Alliance Members and Spouses of AMS Members***

Mrs. Thomas J. Cunningham (Margaret), Pine Bluff  
Mrs. Kenneth R. Duzan (Marie), El Dorado  
Mrs. Rogers P. Edmondson (Mary Lee), Greenbrier  
Mrs. Harold B. Hawley (Roselyn), Little Rock  
Mrs. Charles H. Kennedy (Margaret), North Little Rock  
Mrs. Luther M. Lile (Julia), Little Rock  
Mrs. Malcolm O. Peeler (Roberta), Jonesboro  
Mrs. Grover D. Poole (Imogene), Jonesboro  
Mrs. Ben N. Saltzman (Ruth), Mountain Home  
Mrs. George B. Talbot (Helen), Pine Bluff  
Mrs. J. Kenneth Thompson (Meredith), Fort Smith  
Mrs. H. King Wade (Janet), Hot Springs





# Nominating Committee

Harold Purdy, M.D., Chairman

The Nominating Committee met on Sunday, November 20, 1994, at DeGray Lodge in Bismarck. The committee met again by conference call on Friday, February 3, 1995.

We wish to present to the Society the following nominees:

**President-elect:**

John Crenshaw, M.D., Pine Bluff

**Vice President:**

Joe V. Jones, M.D., Blytheville

**Treasurer:**

Lloyd Langston, M.D., Pine Bluff

**Secretary:**

Mike Moody, M.D., Salem

**Speaker of the House:**

Anna Redman, M.D., Pine Bluff

**Vice Speaker of the House:**

Kevin Beavers, M.D., Russellville

**Delegates to the AMA:**

James Weber, M.D., Jacksonville (1/1/96 - 12/31/97)

**Alternate Delegate to the AMA:**

Larry Lawson, M.D., Paragould (1/1/96 - 12/31/97)

**Councilors:**

District 1:	Joe Stallings, M.D., Jonesboro
District 2:	Lloyd Bess, M.D., Batesville
District 3:	Hoy Speer, M.D., Stuttgart
District 4:	Anna Redman, M.D., Pine Bluff
District 5:	Wayne Elliott, M.D., El Dorado
District 6:	Michael Young, M.D., Prescott
District 7:	Thomas Hollis, M.D., Hot Springs
District 8:	Joseph Beck, M.D., Little Rock Paul Cornell, M.D., Little Rock William Jones, M.D., Little Rock Charles Logan, M.D., Little Rock Mayne Parker, M.D., Little Rock
District 9:	David Davis, M.D., Fayetteville
District 10:	Paul Wills, M.D., Fort Smith

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# Business Reports

## Annual Session Committee Jerry Mann, M.D., Chairman

"The Bases Were Loaded" for the Arkansas Medical Society's annual meeting held April 7-9, 1994, at the Excelsior Hotel in Little Rock. Michael F. Staley opened the meeting with "Ten Things Your Patients Never Told You." The three-day meeting also included "The Challenges in Health Care Reform," Mark V. Pauly, Ph.D., Director of Research and Senior Fellow at the Leonard Davis Institute of Health Economics; "Coping With the New Managed Care Paradigm," Alice Gosfield, J.D., from Philadelphia; "Trends and Prospectives on National Health Care Reform," William D. McInturff, co-founder of Public Opinion Strategies; and the Sixth AMS AIDS Seminar with Robert R. Redfield, M.D., of the Department of Retroviral Research at the Walter Reed Army Institute of Research in Rockville, Maryland, as the keynote speaker.

Exhibitors and sponsors were on hand to show their products and services on Thursday and Friday. Physicians and spouses attended the Arkansas Blue Cross Blue Shield Reception on Thursday evening and *A Grand Slam Celebration* with entertainment provided by the Groan-Ups on Friday. The convention wound up on Saturday with *A Magical Evening* as Andy Hickman entertained with thrilling illusions and reminded the audience that "the real magic is in you."

James M. Kolb, Jr., M.D., was inducted as the 1994/95 AMS President and honored at a reception following the banquet.

## Arkansas Medical Society 1995 Budget Dwight Williams, M.D., Chairman

Income	Amount Budgeted
State Society Dues 1995	\$678,546.00
Journal Advertising	89,000.00
1995 Annual Session Income	40,000.00
Annual Session	38,000.00
AMA Reimbursement	12,000.00
Miscellaneous & Rosters	13,500.00
Interest Income	29,000.00
Specialty Desk	2,455.00
CME	6,750.00
Allocation of G.A. Depart.	5,000.00
Educational Programs	20,000.00
<b>TOTAL</b>	<b>\$934,251.00</b>

## AMS Budget continued

Expenses	
Salaries	\$277,500.00
Travel & Convention	50,000.00
President's Account	6,000.00
Taxes	23,000.00
Retirement	31,000.00
Stationery & Printing	15,000.00
Supplies & Expenses	24,000.00
Telephone	11,000.00
Rent	79,672.00
Postage	30,000.00
Insurance & Bonds	57,000.00
Auditing	6,775.00
Council & Executive Com.	4,800.00
Journal & Directory	75,000.00
Dues & Subscriptions	4,000.00
Gifts & Contributions	2,500.00
Alliance	2,200.00
Legal Services (retainer)	27,426.00
Special Committee	2,700.00
Public Relations	3,000.00
Miscellaneous Expenses	5,000.00
Equipment & Furniture	11,000.00
CME	4,800.00
Richmond Retirement	5,820.00
Contract Labor	1,000.00
Winter Meeting	0.00
Residents & Students	5,500.00
Annual Session 1994	71,000.00
Educational Programs	13,000.00
Physicians Health Com.	14,500.00
MEFFA - Dues	11,385.00
Managed Care	0.00
<b>Total</b>	<b>\$875,578.00</b>

## Governmental Affairs Budget

Income	Amount
G.A. Department 95	\$227,700.00
Income - Misc, Projects	0.00
<b>Total</b>	<b>\$227,700.00</b>
Expenses	Amount
Salaries	\$101,696.00
Retirement	11,100.00
Taxes	8,100.00
Stationery & Printing	8,000.00
Supplies, Telephone, etc.	8,500.00
Equipment & Furniture	1,000.00
Auto, Travel & Meeting	40,000.00
Legal Retainer	18,300.00
Postage	16,000.00
Insurance & Bonds	11,000.00
Office Allocation To AMS	5,000.00
Audit	1,250.00
<b>Total</b>	<b>\$229,946.00</b>



## Continuing Medical Education Accreditation Committee

**Steve Strode, M.D., Chairman**

The Arkansas Medical Society is the official accrediting body for organizations that provide or sponsor CME for physicians within the state of Arkansas. The accreditation activities are carried out by the CME Accreditation Committee which currently consists of Drs. Leslie Anderson, Sanford Hutson, Charles Mabry, Gerald Stolz, Morton Wilson, and myself. Kay Waldo and David Wroten of the AMS provide the administrative support necessary to fulfill our mission.

During the past year, the committee has reviewed five organizations, all hospitals, for reaccreditation. The results of those reviews are as follows: full accreditation for four years - 1 hospital; full accreditation for three years - 1 hospital; full accreditation for two years - 2 hospitals; provisional accreditation (reserved for new applicants or currently accredited sponsors with new programs) for one year - 1 hospital; and one hospital voluntarily withdrew.

Our committee requested approval from the AMS Council to increase the fees charged to organizations seeking accreditation. The request is significant in that for the first time we asked accredited organizations to cover most of the real costs associated with the accreditation process. In the past, the AMS has heavily subsidized the process. We feel the hospitals that benefit from the accreditation program should support the actual costs to keep it going.

The new fees charged are shown below for comparison:

	Past	New
Initial Survey	\$300	\$1,500
Reaccreditation Survey	\$300	\$900
Annual Dues	\$100	\$450
Interim Reports	\$0	\$200

While these fees may seem high, they are still quite reasonable when compared to the fees charged to be accredited directly by the ACCME. For example, the initial survey charged by ACCME is \$2,600 and reaccreditation surveys are \$1,750.

This concludes the report of the CME Accreditation Committee. My sincerest thanks to the committee members and staff for the hard work that they all contribute to this process.

## Report of the Council Charles Logan, M.D., Chairman

### AMS Council:

The Council met on Sunday, February 20, 1994, at the Holiday Inn West in Little Rock and the following business was received and transacted:

1. The Council approved the minutes of the November 7, 1993 Council meeting.
2. The Council approved the minutes of the December 29, 1993 Executive Committee meeting.
3. The Council approved the minutes of the January 26, 1994 Executive Committee meeting.
4. The Council reviewed the minutes of the November 22, 1993 Managed Care Committee meeting for informational purposes.
5. The Council reviewed the minutes of the January 26, 1994 Managed Care Committee meeting for informational purposes.
6. The Council voted to approve the nomination of Dr. Robert McCrary of Hot Springs to the position of councilor for the Seventh Councilor District.
7. Dr. William Jones and Dr. David Bourne, of the Arkansas Department of Health, discussed matching grants for smoke free states available through the Robert Wood Johnson Foundation. CHAR and Arkansans for Drug Free Youth have applied for a \$1.2 million matching grant (\$400,000 from the state of Arkansas for a four-year grant). Upon motion the Council voted to go on record supporting this program and pledge financial support based on recommendations from the Budget Committee.
8. Mr. Lynn Zeno discussed the Soda Pop Tax and reminded the Council financial support would be needed from the AMS and individuals to defeat the repeal of the tax.
9. Dr. John Crenshaw presented the revised Duties and Responsibilities of the Medical Services Review Committee. Upon motion the Council voted to amend section IX to read as follows: "A change in the modes of practice, policy, or other circumstances that require additional responsibilities for the MSRC may be established only by the AMS Council."
10. Dr. Glen Baker gave an update on the AMS Management Company and introduced Janell Mason, the chief operating officer of the company.
11. The Council approved a resolution allowing the employees of the AMS Management Company to participate in the AMS pension plan.
12. The Membership Report for the period ending January 31, 1994 was submitted for information. Dr.

Charles Rodgers reminded everyone to send in checks for MED-PAC.

13. The Budget Report for the period ending January 31, 1994 was submitted for information.
14. Dr. James M. Kolb, Jr. reminded the Council of the AMS Annual Session to be held April 7-9, at the Excelsior Hotel in Little Rock. He asked everyone to call delegates and physicians in their districts and invite them to attend the convention. Dr. Kolb also gave an update on the AMA Leadership Conference held February 10-13, 1994, in San Francisco, California. A copy of AMA's Talking Points was distributed and everyone was urged to use the AMA brochure, "A Message to My Patients" in their reception areas.
15. Dr. John Burge informed the Council members that a resolution presented to the AMA at its December meeting opposing Senate Bill 868 has been passed. The Senate bill entitled "Firearms Prevention Act" would redirect funds from successful hunter education programs.
16. Mr. David Wroten explained the proposed revisions in fees charged to CME sponsors for accreditation. The increase in fees would enable the Medical Society to "break even" rather than subsidize the program. The Council approved this proposal.
17. Dr. Morton Wilson gave an update on the alliance being formed in northwest Arkansas and Oklahoma.

**The Council met April 7-8, 1994, in conjunction with the Arkansas Medical Society annual meeting at the Excelsior Hotel in Little Rock, Arkansas. The following business was received and transacted:**

1. The Council approved the minutes of the February 20, 1994 Council meeting with the following corrections:
  - #7: change the amount from \$600,000 to \$400,000.
  - #7 should read: Dr. William Jones and Dr. David Bourne, of the Arkansas Department of Health, discussed matching grants for smoke free states available through the Robert Wood Johnson Foundation. CHAR and Arkansans for Drug Free Youth have applied for a \$1.2 million matching grant (\$400,000 from the state of Arkansas for a four-year grant). Upon motion the Council voted to go on record supporting this program and pledge financial support based on recommendations from the Budget Committee.
  - #9 should read: Dr. John Crenshaw presented

the revised Duties and Responsibilities of the Medical Services Review Committee. Upon motion the Council voted to amend section IX to read as follows: "A change in the modes of practice, policy, or other circumstances that require additional responsibilities for the MSRC may be established only by the AMS Council."

2. The Council approved the minutes of the March 23, 1994 Executive Committee meeting.
3. Dr. David Bourne from the Arkansas Department of Health discussed Rules and Regulations Pertaining to the Arkansas Cancer Registry. This summer the Health Department will go before an interim committee of the state legislature and ask for approval of the Board of Health regulations that will make cancer a reportable disease. Upon motion the Council voted to support the cancer registry.
4. Dr. Donald Lewers, AMA Board of Trustees, greeted the Council and thanked them for their efforts with the AMA.
5. Dr. Glen Baker reported on the Governor's Task Force on Health Care Reform.
6. Dr. Lloyd Langston reported on the activities of the Health Resources Commission.
7. A report on the Physicians' Advisory Committee to Medicare was presented for information.
8. Dr. Kevin Kenny, Medical Director of the Arkansas Foundation for Medical Care, was introduced and spoke briefly to the Council.
9. The following appointments were made to the AMS Management Company Board of Directors: Annette S. Kline, Strong Systems, Inc., Pine Bluff; William R. Austin, Central Moloney, Inc., Pine Bluff; Sam Thompson, Automatic Vending of Arkansas, Inc., Pine Bluff; and Chris Long, Florida Drum, Pine Bluff.
10. The AMS Membership and Budget Reports for the period ending February 28, 1994, was submitted for information.
11. The 1993 MEFFA and AMS Audits were received for information.
12. Dr. Morton Wilson, Chairman of the Budget Committee, reported the Robert Wood Johnson Foundation grant was not approved for funds for Smoke Free Arkansas. Upon motion the Council voted to



go on record supporting an ordinance for "Smoke Free Little Rock" for the regulation of tobacco use in public places.

13. The Council approved the following dates for future AMS conventions:

2000: May 4 - 6, Arlington Hotel, Hot Springs  
2001: May 3 - 5, Arlington Hotel, Hot Springs  
2002: May 2 - 4, Excelsior Hotel, Little Rock  
2003: May 1 - 3, Arlington Hotel, Hot Springs  
2004: April 29 - May 1, Excelsior Hotel, Little Rock

14. Dr. John Crenshaw gave an update on the Medical Services Review Committee stating there had been no meetings during September to March.

15. The Council approved a list of physicians requesting dues exemption for life, emeritus, and affiliate memberships.

16. Dr. Logan presented for information maps of the old congressional districts, the new congressional districts, and the AMS councilor districts.

17. Dr. Glen Baker gave an update on the AMS Management Company stating over 1,400 physicians have agreed to participate in the program. Four local managed care organizations have become incorporated and are being put together at this time.

18. The Council made the following appointments:

**Budget Committee:**

Robert Nunnally, Camden

**Pension Plan Board of Trustees:**

Anna Redman, Pine Bluff

**Committee on Position Papers:**

Raymond Bowman, El Dorado

Janet Titus, Winslow

Ladd Scriber, Jonesboro

**Young Physicians Committee:**

District 3: L. J. Patrick Bell, II, Helena

District 4: Anna Redman, Pine Bluff

District 5: Gary Beville, El Dorado

**AMS Benefits Committee:**

James M. Kolb, Jr., Russellville, orthopaedic surgeon

John Cox, Hot Springs, clinic manager

Kurtis Vinsant, Little Rock, general surgeon

**Journal Editorial Board:**

David Barclay, Little Rock

John Olson, Fort Smith

**Medical Services Review Committee:**

*Family Practice:* Michael Young, Prescott and

Geoffrey Goldsmith, Little Rock

*General Surgery:* Charles Mabry, Pine Bluff

*Anesthesiology:* H. Jerrel Fontenot, Little Rock

*Neurosurgery:* David L. Reding, Little Rock

*Urology:* David Lupo, Pine Bluff

**Physicians' Advisory Committee to Medicare:**

*Anesthesiology:* H. Jerrel Fontenot, Little Rock

*Cardiovascular Diseases:* William Fiser, Little Rock  
and John B. Weiss, Springdale

*Doctor of Osteopathy:* Kenneth Heiles, Star City

*Gastroenterology:* John Baber, Little Rock

*Neurology:* Jan Sullivan, Little Rock

*Neurosurgery:* David Reding, Little Rock

*Ophthalmology:* Richard Henry, North Little Rock

*Oral Surgery:* Robert Anderson, Little Rock

*Psychiatry:* Max Baker, Fort Smith

*Plastic Surgery:* Luther Walley, Hot Springs

*Pulmonary Diseases:* Gail McCracken, Little Rock

*Rheumatology:* Thomas Kovalski, Little Rock

*Urology:* David Lupo, Pine Bluff

19. Upon motion the Council voted to synchronize the terms for MSRC and Physician Advisory Committee members to rotate off those committees at the same time.

20. Dr. James Kolb urged everyone to make their contributions to MED-PAC. It was suggested that the next AMS Newsletter include a reminder to pay MED-PAC with a personal check.

**Addendum to the Report of the Council April 7-8, 1994: The Council met for a brief organizational meeting on April 9, 1994, following the AMS House of Delegates. The following business was received and transacted:**

1. The Council approved a resolution supporting the Arkansas Soft Drink Tax.
2. The Council reappointed Dr. Charles Logan as chairman of the Council for 1994-95.
3. The Council approved the following appointments to the Medical Services Review Committee: Griffin Arnold, M.D., Salem - internal medicine, and Joe Stallings, M.D., Jonesboro - vice chairman.

**The Council met at noon on Sunday, August 7, 1994, at the Holiday Inn North in North Little Rock and the following business was received and transacted:**

1. The Council approved the minutes of the April 7-9, 1994 Council meetings with the following correction: Item #19, change Physician Health Committee to read Physician Advisory Committee.
2. The Council approved the minutes of the May 25, 1994 Executive Committee meeting.
3. The Council approved the minutes of the July 27,

1994 Executive Committee meeting with the following correction: Item #8, change licensure fee of \$25.00 to read licensure fee up to \$25.00.

4. Dr. Glen Baker updated the Council on the status of the Governor's Health Care Reform Task Force. He said the task force had been advised the meeting a week prior was the last meeting after working for almost one year. The Governor has asked that a complete report be submitted to him by the end of August.

Mr. Mike Mitchell discussed the Any Willing Provider issue; he served as a consultant on that committee.

Dr. Mike Moody stated the Arkansas Nurses Association has recommended that the Nurse Practice Act be amended to give 1) independent prescription authority and to grandfather in all current nurse practitioners; 2) direct reimbursement from third party payers; and 3) admitting and discharging privileges. The task force overwhelmingly passed this recommendation to be regulated by the State Board of Nursing. The Arkansas Academy of Family Physicians has discussed developing a more conservative recommendation and voted to oppose the Nurses Association recommendation.

5. Dr. John Burge reported on the AMA meeting held June 12-16, 1994, in Chicago.
6. Dr. William Jones gave a report on the AIDS meeting held in conjunction with the AMS annual session and the keynote speaker, Robert R. Redfield, M.D., of the Walter Reed Army Institute in Rockville, Maryland. The Council approved a letter on behalf of the AMS to Burroughs Wellcome Company and its local representative, Dale Emmerling, expressing appreciation for their long standing financial and logistical support of the AMS AIDS-HIV educational programs for the public and the profession.
7. Dr. Sandra Nichols, Director of the Arkansas Department of Health, greeted the Council and discussed some of the challenges of her position.
8. Mary Ann Stallings, President of the AMS Alliance, addressed the Council and presented two proposals for their approval. The Council voted to recommend to the Annual Session Committee a program to help physicians deal with victims of family violence and a medical marriage seminar.
9. Brian Baker, President of the Arkansas Medical Group Management Association, announced the

group would hold their annual meeting September 14-16 in Little Rock.

10. The Council appointed Dr. William Joe James of Pine Bluff to serve on the Medical Services Review Committee representing psychiatry.
11. Dr. Anna Redman, Chairman of the Young Physicians' Committee, asked the Council to approve the following physicians as members of the Young Physicians Committee: J. Timothy Dow, District 1; Joseph D. Sarnicki, District 5; and James R. Sarret, District 6. Upon motion the Council agreed that other committee members may be selected from information taken from the recent Young Physicians Survey with tentative approval from the Executive Committee and final approval from the Council.
12. David Wroten reported on the HCFA's proposed changes in the locality portion of the RBRVS formula. He reported Arkansas is no longer the lowest state in Medicare reimbursement but is now fifth from the lowest.
13. Dr. Charles Logan discussed the selection process for members of the Physicians' Advisory Committee to Medicare. Currently the AMS recommends the specialty society physicians who serve on this committee.
14. The Council gave its approval for the nomination and endorsement of Dr. William Jones for a position on the AMA's Council on Scientific Affairs.
15. The AMS Membership Report was submitted for information.
16. The AMS Budget Report was submitted for information.
17. Dr. James M. Kolb, Jr., discussed the Physicians' Health Committee. About 50% of the physicians in the program are not members of the AMS. The State Medical Board refers many physicians to Dr. Joe Martindale. The Council agreed to support an increase of up to an additional \$25 in state licensure fees. Lynn Zeno informed the members there is no way to ensure that an increase in fees would mean an increase in funds to the Physicians' Health Committee. An addendum to the motion was approved to authorize the Executive Committee to establish a foundation if necessary.
18. Dr. James M. Kolb, Jr., urged everyone to write or call Senators Bumpers and Pryor and ask them to support the Patient Protection Act.



19. Ken LaMastus advised the Council the Physicians' Health Committee would need additional funding. The Council approved an additional \$10,000 contribution to the committee.

The Council adjourned to reconvene into Executive Session. Minutes of Executive Sessions are available for review by any AMS member at the Society office.

**The Council of the Arkansas Medical Society met on Sunday, November 20, 1994, at DeGray Lodge in Bismarck and the following business was received and transacted:**

1. The minutes of the August 7, 1994 Council meeting were approved.
2. The minutes of the October 10, 1994 Executive Committee conference call were approved.
3. The minutes of the October 26, 1994 Executive Committee meeting were approved.
4. Mary Ann Stallings, President of the Arkansas Medical Society Alliance, reported on the Alliance's activities. Dr. Lenore E. A. Walker has agreed to speak on domestic violence at the AMS annual meeting in May 1995. Domestic violence will be an ongoing focus for the Alliance. The Medical Marriage Seminar is still in the planning stages.
5. Nancy Kintzel, AMA representative, greeted the Council and gave an update on the reconfiguration of the AMA. Eight groups which formerly addressed various AMA programs now have been consolidated into four groups. A greater emphasis will be placed on science and medical education activities.
6. Dr. John Wilson, Eighth District Councilor, discussed managed care companies requesting information on malpractice claims for credentialing purposes. Dr. Wilson asked the Council to review the practice of managed care companies obtaining information regarding "complaints" in addition to actual claims that have been filed.

Dr. Ray Jouett informed the Council that the legislature has asked that a committee be formed to credential all health care providers. Dr. Jouett has suggested all information go to the State Medical Board. He expects this to take effect in a short period of time.

Upon motion the Council approved the chairman appointing a committee to review this issue. The Committee will report back to the Council.

7. The Membership Report was presented for information.
8. The Council approved Dr. David Davis of Fayetteville to fill Dr. David Rogers' unexpired term of Ninth District Councilor. Dr. James Kolb was approved to fill Dr. David Rogers' unexpired term as alternate delegate.
9. There were no nominations to fill the unexpired term of Dr. John Gillean. The position remains vacant.
10. Dr. John Crenshaw made a plea for the Nominating Committee to consider a young physician to fill the AMA Alternate Delegate vacancy left by Dr. David Rogers. He stressed the importance of cultivating young physicians who could progress into leadership positions.
11. Janell Mason updated the Council on the partnership between the AMCO Network and CorVel, a case management and utilization review firm which will position the AMCOs as CorVel's network for Rule 33 of the Workers' Compensation Commission. An application for MCO certification has been submitted to the Workers' Compensation Commission. Approval is expected around December 15.
12. Dr. William Jones announced that as of September 21 all labs have to report CD4 counts, normal or abnormal, to the Department of Health.
13. Dr. William Jones thanked the Council for their support of his nomination for the position on the AMA's Council on Scientific Affairs.

The Council adjourned to reconvene in executive session. Minutes of executive sessions are available for review by any member at the Society office.

### **AMS Executive Committee:**

The AMS Executive Committee met on Wednesday, January 26, 1994, at the Arkansas Medical Society office in Little Rock and the following business was received and transacted:

1. Dr. Charles Rodgers recommended some minor changes be made in the Duties and Responsibilities of the Medical Services Review Committee. The Executive Committee approved them and recommended that we notify Arkansas Blue Cross Blue Shield of the changes.

The Executive Committee recommended that a letter over Dr. Lawson's signature as chairman of the committee to review the MSRC duties and responsibilities be sent to the members of the Medical Services Review Committee notifying them of these changes.

2. The Executive Committee approved writing a letter to the HCFA recommending Dr. Jan Turley for a position on the Practicing Physicians Advisory Council on Medicare.
3. A request for AMS membership from Dr. J. Fred Thomas was reviewed. It was pointed out that Dr. Thomas did not meet all the requirements for membership. A letter was reviewed from the Medical Board that indicated Dr. Thomas holds a temporary permit. The AMS Constitution and Bylaws requires a physician to have a license. Dr. Thomas' request for membership was denied.
4. A list of physicians requesting direct membership in the Arkansas Medical Society was approved.

The AMS Executive Committee met briefly on Wednesday, March 23, 1994, at the Arkansas Medical Society office in Little Rock and the following business was received and transacted:

1. The Council approved a list of physicians requesting direct membership in the Arkansas Medical Society.

The Executive Committee met at 4:15 p.m., on Wednesday, May 25, 1994, at the Arkansas Medical Society office in Little Rock and the following business was received and transacted:

1. The Executive Committee reviewed information concerning the Physicians' Health Committee and proposed methods of raising money to adequately fund the committee. Dr. Joe Martindale indicated there is a need to bring the committee's functions up to the level of other states and this would require additional funding. Currently the Physicians' Health Committee operates on an approximate budget of \$40,000 per year which pays Dr. Martindale's salary and expenses. Dr. Martindale indicated to adequately fund this program it would take approximately \$300,000 per year. The Executive Committee will contact Dr. Ray Jouett, Chairman of the Arkansas State Medical Board, to discuss the possibility of increasing licensing fees to assist in funding the program. Dr. Martindale indicated approximately 50% of the physicians who have been followed by the program are not AMS members and about 25% are referred by the Arkansas State Medical Board.

2. The Executive Committee reviewed and approved a list of physicians requesting direct membership.
3. The Executive Committee reviewed information from the AMA concerning their stand on national health insurance. The Executive Committee decided to ask Lynn Zeno his thoughts about the information before we contact the AMA with our opinion.
4. The Executive Committee reviewed a letter from Nicholas H. Patton, an attorney from Texarkana, concerning meeting with some of the trial lawyers to look at the situation of physician liability. The committee recommended that the letter be forwarded to Mr. Mike Mitchell, our attorney, and that he contact Mr. Patton.
5. The Executive Committee reviewed a letter from Dr. H. Patrick Stern, Chief of the Section of Behavioral Pediatrics at the Arkansas Children's Hospital, asking the Medical Society to oppose the use of corporal punishment in Arkansas schools. It was received for information.
6. The Executive Committee reviewed a request from the Arkansas Department of Human Services for a nomination to the Medical Care Advisory Committee to Medicaid. Dr. James Kolb recommended that Ken LaMastus contact Dr. Rick Harrison of Russellville to see if he would be willing to serve on this committee.

The Executive Committee of the Arkansas Medical Society met on Wednesday, July 27, 1994, in the Arkansas Medical Society office in Little Rock and the following business was received and transacted:

1. The Executive Committee met with representatives from Pharmacy Associates, Inc. to discuss their managed care program. Pharmacy Associates has asked that the Medical Society recommend a physician to serve on their Pharmacy and Therapeutic Committee. The Executive Committee received this for information and recommended that Pharmacy Associates talk with Janell Mason concerning our managed care program and possibly recommending a representative to their committee.
2. The Executive Committee reviewed a proposed bill for the upcoming legislative session in January from Dr. Gilbert Buchanan. The bill would require physicians to report all immunizations to the Arkansas Department of Health. The Executive Committee received this for information.
3. The Executive Committee approved a list of physicians requesting direct membership in the Arkansas Medical Society.



4. The Executive Committee heard a report from Mr. David Wroten concerning AMS Benefits, Inc. This information will be discussed at the next Council meeting.
5. Dr. James M. Kolb, Jr., recommended distributing a packet of materials concerning health system reform that we used in our lobbying efforts to AMS members. The Executive Committee approved this recommendation.
6. The Executive Committee approved an "Any Willing Provider" bill developed by the Arkansas Medical Society and other health care providers for introduction during the 1995 General Assembly.
7. The Executive Committee recommended that the Council take action to support Dr. William Jones in his efforts to run for a position on the AMA's Council on Scientific Affairs. This will be discussed at the next Council meeting.
8. Drs. James M. Kolb, Jr. and Glen Baker reported on a meeting with Dr. Ray Jouett, Chairman of the Arkansas State Medical Board, concerning a possible increase in licensure fees to support the Physicians' Health Committee. It was reported that 50% of the physicians under the care of the Physicians' Health Committee are not members of the Medical Society and 25% of the total are referred by the Arkansas State Medical Board. The Executive Committee will recommend to the Council that we support an increase in the licensure fee up to \$25.00. If the Council approves this amount it will be reported to the Arkansas State Medical Board.

**The Arkansas Medical Society Executive Committee met by conference call on October 10, 1994, and the following business was received and transacted:**

1. The Executive Committee reviewed a proposal for a health system reform plan called "Citizens Choice Task Force." This is a group composed primarily of health insurance sales people who represent almost every company except Arkansas Blue Cross Blue Shield.
2. The Executive Committee reviewed the information provided and agreed to have the AMS staff work with this group to support the proposal in the upcoming legislative session.

**The Arkansas Medical Society Executive Committee met on October 26, 1994, at the Arkansas Medical Society office in Little Rock and the following business was received and transacted:**

1. The Executive Committee recommended that the Governor appoint Rick Harrison, a pediatrician from Russellville, and Mr. David Wroten of the AMS staff, to the DHS Advisory Committee. This new committee is the result of the DHS lawsuit the AMS filed two years ago.
2. Upon a request from the Governor the Executive Committee recommends James A. Lindsey, a family practitioner from Pine Bluff, be appointed to the Long Term Care Advisory Committee.
3. Upon a request from the Governor the Executive Committee recommends the following physicians be appointed to the Hispanic Advisory Committee: Vincent Calderon, Jr., a pediatrician from Little Rock, Francisco Batres, a gynecologist from Little Rock, and Sergio F. Soto, a cardiovascular practitioner from Russellville.
4. The Executive Committee considered a suggestion that the Medical Society work with the AARP to form an advisory committee to any Medicare HMO organized in Arkansas. The AMS staff will explore this further with the AARP.
5. The Executive Committee decided that funds will be provided for four people to attend the AMA Leadership Conference, April 23-26, in Washington, D.C.
6. The Executive Committee approved Dr. Charles Jones of Pope County for affiliate membership and Dr. A. Vale Harrison of Pulaski County as a life member. The Executive Committee also approved a listing of physicians requesting direct membership in the Arkansas Medical Society.
7. Janell Mason gave an update on the AMS Management Company.

## **Executive Vice President Report Ken LaMastus, CAE**

What is the Arkansas Medical Society? In thinking about this question I am reminded of the story of the three blind men describing the elephant by touching parts of it. Obviously, many physicians as well as the public has a different view of our organization based upon their view or contact.

The leadership of the Medical Society at different times wears many different hats. The Arkansas Medical is a business and owns a major piece of real estate in Little Rock, publishes a magazine, and employs ten people. The Society owns two for profit subsidiaries, one managed by the Society (AMS Benefits, Inc.) and one in which the Society owns the stock (AMS Management Company). The Society also manages two tax

exempt foundations (Arkansas Foundation for Medical Care and The Medical Education Foundation for Arkansas) and accredits organizations for continuing medical education and offers educational programs for physicians. It is a major state lobbying group, a source of information for physicians and nonphysicians on issues pertaining to health care in the state of Arkansas.

***"...the Society is involved in a variety of areas that benefit health care of the people of Arkansas and representing the physicians of the state. I believe we are doing a good job of which the physicians of this state can be proud."***

It seems the Arkansas Medical Society should be harder to describe than the elephant. The primary function of the Society is to represent physicians and physicians' interests. In the first week of January the primary focus of the Arkansas Medical Society has been the events taking place at the State Capitol. Although the session is not completed at the time of this writing, it appears we will come out of the session successfully. The major victory of the session would be the passage and signing by the Governor the Patient Protection Act otherwise known as the "Any Willing Provider Act." You should thank Mr. Lynn Zeno, your patients, and other health care groups for their work on this issue.

The passage of this bill will allow physicians and other groups of health professionals to continue to provide health care to the people of our state. The passage of the Patient Protection Act is not the complete answer to what many physicians feel is an encroachment of managed care. It does, however, offer some relief by allowing physicians to contract with HMOs and other managed care organizations if they agree to meet the requirements of that managed care plan in terms of fee systems, quality of care, and utilization review. Make no mistake about it, this was a major battle. It is estimated the insurance industry spent between \$800,000 and \$1,000,000 on newspaper, radio, and television advertising. We will still have managed care in this state and it will continue to grow and will be forcing physicians to provide quality medical care at reasonable prices.

The Arkansas Medical Society Building is owned by the Society and managed by Flake and Company. The building is approximately 30,000 feet and the Society leases 20% of the space, the remaining space is leased by other tenants. The building is considered to be Class A office property. This year the building will show a loss which was anticipated but it has managed to meet its obligations. The Society derives no funds from the building and pays rent like the other tenants.

The Arkansas Health Care Access Foundation has two employees. It has a separate board of directors of which half are practicing physicians. It is managed by the Medical Society and operates primarily on funds provided by a grant through the Arkansas Department of Human Services.

The Arkansas Health Care Access Foundation coordinates volunteer physicians, other individuals and organizations to provide medical services to low income individuals who might not otherwise be able to afford care

This program has also developed into being a major referral to other organizations providing care by use of the 800 number. There are approximately 1,000 Arkansas physicians who volunteer their services along with 400 pharmacies, 89 hospitals, home health agencies, and 130 dentists who work with the program.

The Medical Education Foundation for Arkansas is a foundation established by the Arkansas Medical Society. Its sole purpose is to support educational efforts in the area of medical care. It also is governed by a board of directors appointed by the Council of the Arkansas Medical Society.

Another important function of the Society is the Physicians' Health Committee. The Committee is composed of physicians and the director is Dr. Joe Martindale. The committee works with physicians who have problems associated with alcohol and other habit forming substances. It is anticipated during this year the committee will be changed to a foundation with additional money coming in from the Arkansas State Medical Board based upon an increase in licensure fee which, hopefully, will be passed by the state legislature in this session.

Operating under the guidance of the Executive Committee, the Council, and the House of Delegates, the Society is involved in a variety of areas that benefit health care of the people of Arkansas and representing the physicians of the state. I believe we are doing a good job of which the physicians of this state can be proud.

### **Medical Education Foundation for Arkansas Martin Eisele, M.D., President**

The Medical Education Foundation for Arkansas was organized by the Arkansas Medical Society in 1959. It is governed by a board of directors appointed by the Council of the Arkansas Medical Society. I am privileged to serve as president. Other members of the board are Drs. Gerald Stolz, William Bishop, and James Kyser.



Serving as ex-officio with voting power are the Arkansas Medical Society president, president-elect, immediate past president, and the Dean of the University of Arkansas College of Medicine.

The Foundation receives funds contributed by the Arkansas Medical Society which amounts to \$5.00 for each full dues paying member per year. By conservative investment and expenditures, the Foundation has grown to a net worth in excess of \$400,000. The Foundation has an independent audit each year and a copy of the audit is provided to the Council. Funds are used each year to promote the art and science of medicine and the betterment of the health of the public by providing financial support to recognize schools or institutions who provide primary and advanced medical education.

Funds have been provided in the past to the University of Arkansas College of Medicine which uses funding to pay for speakers who would not otherwise have been available to lecture medical students and physicians in training. The Foundation also provides occasional grants to other medical related programs.

The board has established a policy of accumulating funds over a period of time so in the future the foundation will have adequate funds to undertake major projects.

**Medical Services Review Committee**

**John Crenshaw, M.D., Chairman**

The Medical Services Review Committee revised its bylaws in early 1994 and they were approved by the Council of the Arkansas Medical Society in April 1994. The committee met on May 25, 1994, July 27, 1994, October 26, 1994, and January 25, 1995. The next meeting of the Medical Services Review Committee will be held on April 26, 1995. The Medicare's development of a clinical advisory committee has reduced the case load of the Medical Services Review Committee and, therefore, the meetings have been less frequent, usually quarterly. Thus far other insurance carriers have not utilized the services offered by this committee.

The efforts exerted by the committee members are appreciated by the Arkansas Medical Society Council and Arkansas Blue Cross Blue Shield.

**Physicians' Health Committee**

**Joe L. Martindale, M.D., Chairman**

As the number of cases increase more demands are made on the members of the Physicians' Health Committee. We are on the telephone an inordinate amount of time and must furnish proof of recovery for each physician to each hospital and HMO that they are involved with. We simply do not have the time or manpower to keep up with these demands. We have considered setting a fee for services to be paid by each physician that we advocate for. The Physicians' Health

Committee needs a full-time person to serve our needs. That person could monitor meeting attendance, random drug screens, and do correspondence. I feel that a full-time office staff person and a one-half to three-fourths time medical director will be essential to the continued success of this program.

Our growth has overwhelmed us during the past several months. We continue to function but I fear that the quality of our monitoring will suffer soon. We are at a crossroad and must decide if we want a quality program or not. To have a quality program, we must be funded at a higher level that we are now. Our troubled physicians need help. It is up to the Medical Society to help provide this help. We cannot do it alone. We need your help!

**Physician's Health Committee Budget for 1995:**

<b>Income</b>	<b>Amount</b>
Physicians' Health Committee	\$37,000.00
<b>TOTAL</b>	<b>\$37,000.00</b>
<b>Expenses</b>	<b>Amount</b>
Contract Medical Director	\$35,000.00
Office Supplies & Postage	500.00
Telephone & Answering Service	1,000.00
Travel - Medical Director	1,000.00
Miscellaneous	550.00
<b>TOTAL</b>	<b>\$38,050.00</b>

**Young Physicians Committee**

**Anna Redman, M.D., Chairman**

The Young Physicians Committee has completed its restructuring process and is now comprised of members from every area of the state who are committed to being active and interested in the activities of the committee. We feel our committee is ready to implement the ideas which we have been discussing during the past year.

The committee met in conjunction with the fall meeting of the Arkansas Medical Society House of Delegates. The main agenda considered was the selection of a topic for the Young Physicians seminar to be presented at the AMS spring meeting. The committee felt that the subject most relevant to young physicians was in the area of reimbursement/practice management, in particular improving the bottom line. The committee will be working in conjunction with the AMS staff in developing a seminar on this topic, targeting young physicians in an attempt to get them to attend the annual session, and to evoke their interest in the activities of the AMS. The committee also discussed the possibility of doing a seminar on choosing and establishing a practice, but felt that this would be more useful in the fall, since most residents had already selected a practice by spring.

# W

ayne Kellar knows a good thing when he sees it. In 1973 he saw two of Searcy's clinics merging, and agreed to come on board as Administrator. "From the beginning, our goal was the highest-quality medical care possible for the people and families of central Arkansas," he says. "We treat our patients like family."

Years later Bill Starkey of The Medical Protective Company recommended a different professional liability plan for the center, and it looked good to Wayne for a number of reasons. "First, professional liability insurance is The Medical Protective Company's only business. It's their focus, not a sideline. They are the experts.

Second, they are the oldest professional liability carrier in the country—and stability is critical to my comfort and that of our physicians. Third, the economics is competitive. Fourth, the level of service we get from both Bill Starkey of The Medical Protective Company and MGIS really makes a difference."

This year the guard changes at Searcy Medical Center, as Wayne retires to work on his golf game and spend more time with his grandchildren. Wayne's successor, Al Fowler, doesn't foresee any insurance changes. I'm looking forward to working with The Medical Protective Company and MGIS," he says. "They've done a good job helping our clinic and our physicians deal with the realities of our business. We are all very comfortable with them."

The MGMA Group Professional Liability Program is underwritten by The Medical Protective Company, the nation's oldest professional liability underwriter. Founded in 1899, The Medical Protective Company has over one billion dollars in assets and a continuous A+ (Superior) rating from A.M. Best as well as a AA rating from Standard & Poor's.

Would you like to feel more comfortable with your group insurance?

For information on our Professional Liability Program contact Bill Starkey of the Medical Protective Company, (501) 221-1056 or toll-free (800) 344-1899.

Or for complete plan provisions or a proposal for your group, call toll-free (800) 969-MGIS.



### The Medical Protective Company

10 Corporate Hill Drive  
Little Rock, AR 72205  
Phone: (510) 221-1056  
Toll-Free (800) 344-1899



### Medical Group Insurance Services, Inc.

85 Great Oaks Boulevard, San Jose, CA 95119  
Post Office Box 530951, San Jose, CA 95153-5351  
Phone: (408) 224-5400  
Toll-Free: (800) 969-MGIS

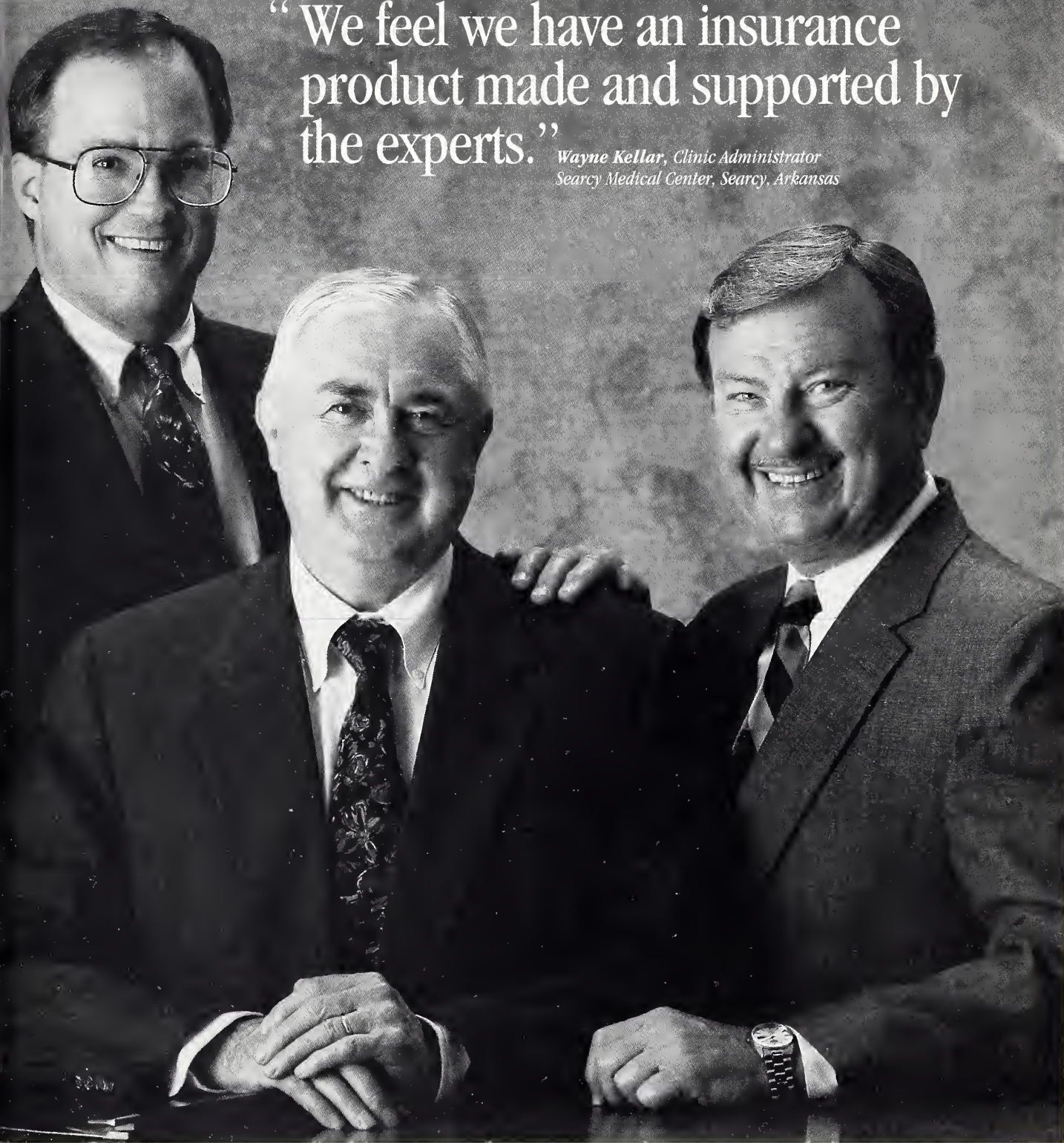




Regarding the MGMA-sponsored professional liability plan, administered by MGIS and underwritten by The Medical Protective Company:

“We feel we have an insurance product made and supported by the experts.”

*Wayne Kellar, Clinic Administrator  
Searcy Medical Center, Searcy, Arkansas*



*In 1973 four internal medicine physicians joined four family practice physicians to form the Searcy Medical Center. In twenty years the group practice has grown to include 19 physicians and 66 employees, offering a wide range of medical services to the people of central Arkansas.*

*Pictured from left to right:*

*Al Fowler, of Searcy Medical Center; Wayne Kellar, of Searcy Medical Center; and Bill Starkey, of The Medical Protective Company.*

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The committee is interested in pursuing areas which are of interest to the young practicing physician and used the topics suggested in our survey to develop the program.

As chairman of the committee, I attended the AMA-YPS meetings in June in Chicago and in December in Honolulu. I had the opportunity to meet with fellow young physicians from around the country, and to see what the concerns of young physicians are in different geographical areas. I found that, while many concerns were the same as our own, here in Arkansas we are insulated from a lot of the problems faced in the more industrialized/metropolitan areas.

I have also had the privilege of representing the AMA-YPS section on the AMA Women's Health Issues Advisory Panel. This is a very active panel which is addressing issues relevant to all women, but physicians in particular. One very important issue is the lack of women in leadership roles in most of organized medicine. This is of great significance to young physicians - many of whom are women - and I hope to have some meaningful information to relate to our own committee as the panel continues its work.

The Young Physicians Committee is looking forward to pursuing the goals set last year and enhancing the interest and the role of the young physician in the growth of the Arkansas Medical Society.

### **AMS Management Company Arkansas Managed Care Organization Janell L. Mason, COO**

The last year has brought to reality a concept which both the medical and business communities have needed and requested, and have now overwhelmingly endorsed - Arkansas Managed Care Organization (AMCO) — a managed care network competitive in cost and superior in quality and access to care.

AMS Management Company (AMSMC) is now fully operational, implementing the partnership between medical care providers and businesses throughout Arkansas. As we reflect on last year's progress and events, we recognize the numerous accomplishments, while also realizing much remains to be done.

Within the last year, AMSMC incorporated, recruited a growing staff of dedicated managed care professionals, outgrew its office space in the Arkansas Medical Society Building and relocated to larger offices on the same floor, developed AMCO — Arkansas' first statewide community-based health care network, incorporated and established 19 community networks, contracted over 1700 physicians and 30 hospitals, became the second largest managed care network in Arkansas, and ultimately became the PPO of choice for many self-funded and fully-insured employers throughout the state.

From February to June, AMSMC staff members together with representatives of the Arkansas Medical Society, including Ken LaMastus, Lynn Zeno and David Wroten, along with Dr. Glen Baker and Dr. James M. Kolb, Jr. met with groups of interested physicians throughout the state. As we embarked on our journey of presenting the Arkansas Managed Care Organization (AMCO) concept, we quickly determined that initial plans for 6-8 local networks would not adequately serve the needs of interested physicians.

AMSMC then guided each of the 19 groups of physicians, all which eventually formed a local AMCO, through the organizational process. This process included incorporating, electing initial boards, developing various legal documents necessary to implement such a program, and assessing the needs and desires of each local community. Each AMCO then executed a management agreement with AMSMC, which enabled us to serve as their exclusive management company.

AMSMC likewise conducted a thorough credentialing of AMCO physicians and began development of its comprehensive hospital network. Our rural hospital partners welcomed a program that kept care local and allowed them to provide core care. It is notable that AMCO is the only managed care network with 7 partner hospitals in Little Rock, offering physicians and employers the opportunity to access a variety of medical staffs throughout Pulaski County with the flexibility to allow for exclusive arrangements, if desired.

Additionally, AMSMC expanded its service menu to include managed care contract review, contract negotiation assistance, and development of managed care educational tools. We continue to serve as a managed care resource for our physicians and their clinic administrators. While AMSMC continues to be the mechanism that makes AMCO operational. AMCO has quickly moved to the forefront.

So, what is AMCO? AMCO is a statewide network of 19 individual community-based health care networks. Each of these non-profit corporations has a local board of directors and committees comprised of local physicians and employers and, in some communities, hospital representatives and clinic administrators. All AMCOs are locally governed, ensuring that the needs of each local community are met. AMSMC serves at the direction of these AMCOs, and provides all staff and support services necessary to operate the AMCO program.

The AMCO "local care" concept provides employers with a network of community-based providers, and provides its physician partners with a statewide network of partners when the level of care necessary is not available within the local AMCO network.

AMCO also provides flexibility to employers, allowing the network to customize a program of managed care for a particular employer. AMCO serves as an overlay to a health plan rather than replacing the plan. While



AMCO itself is not an insurance product, it does work in conjunction with several fully insured products and self-funded health plans.

In the summer of 94, as the workers' compensation MCO Rule 33 came into focus, many physicians requested that AMSMC develop a strategy for addressing the MCO issue. A committee was appointed by AMSMC's board; after much study it was determined that AMCO would select a partner to provide the required components not readily available through the -AMCO network. AMCO eventually joined with CorVel Corporation, a Fortune 500 company which provides case management and utilization review, who submitted an application in early November 94 to the Workers' Compensation Commission. As of this date, there have been no Rule 33 MCOs certified.

In September, Dr. Baker submitted his resignation as President of AMSMC due to the addition of responsibilities at UAMS. Dr. Kolb, who had served as Vice President, was unanimously elected President and provided us with continuity. We are fortunate to have such dedicated board members (physicians, employers and AMS staff) who donate their time and talents, and are extremely grateful for their leadership.

In March 1995, AMCO was included as an option in AMS Benefits' health plan for physicians, allowing physicians to see firsthand, the savings generated through AMCO.

It is apparent that the direction chosen by the Arkansas Medical Society in developing this managed care program, to organize care — keep it local — build partnerships with employers and their employees, has set AMCO on the right course.

All of this could not have been accomplished without the dedication of our 14 outstanding board members, Ken, David and Lynn of the Arkansas Medical Society, and the unique talents of each of my "team" members; for each of these people I am truly grateful. We look forward to the evolution of AMCO as it continues to flourish as a market-responsive managed care program, and to continuing our positive relationships with our partner physicians, their clinic staffs, Hospital partners, and our partner employers and their employees.

### **Arkansas Health Care Access Foundation, Inc. Harold Hedges, M.D., President**

For the past six years, the Arkansas Health Care Access Foundation, Inc., (AHCAF) has been dedicated to helping the medically indigent in Arkansas gain access to free and reduced cost medical care. Accessible health care is crucial to maintaining an adequate quality of life in the state. You and your colleagues have played an integral role in AHCAF'S pursuit of this goal.

The Foundation boasts over 982 physician volunteers. Through its network of over 1,700 health professionals such as physicians, dentists, pharmacists, phar-

maceutical manufacturers, hospitals, home health agencies, the Arkansas Department of Health and the Arkansas Department of Human Services, it has provided nearly \$1,000,000.00 in medical care, to over 33,000 needy Arkansans. Rarely, have so many different types of health care professionals united in one statewide endeavor!

The AHCAF continues in its aim to provide health care to the state's medically indigent by looking at additional ways of helping them to access medical care. Improvement has been made in the application process, by allowing the Department of Health units to act as an added point of entry into the referral system. Now, needy Arkansans may enter the program from anywhere in the state, through their local Department of Human Services office or local Public Health units. KATV-Channel 7 frequently airs our Public Service Announcement, which always generates record numbers of inquiries on our toll-free number. The Foundation has received over 6,000 telephone calls since July 1994!

In a continuing effort to expand the types of services to the medically indigent in Arkansas, the Foundation is reaching across health care boundaries by working in a cooperative effort with other health organizations in the state. The Foundation has joined with the Arkansas Department of Health, to assist with the Breast & Cervical Cancer Screening Program for indigent women. More recently, we are exploring options with the Arkansas Rural Hospital Program to increase accessibility for those in rural areas of the state. Another major accomplishment of the Foundation has been to gain access to insulin for those diabetics on the program who have no means to obtain the medication. In addition, we plan to add Certified Diabetic Specialists who will be available to provide free counseling. We hope physicians will find this a great help in providing follow-up to the diabetic patients they see through this program.

Recruitment of volunteers is always a high priority for the Foundation. At the present time, the Foundation has successfully recruited volunteer physicians from all AHEC clinics around the state. The most recent addition is the Texarkana AHEC in December, 1994.

The staff and board remain active in participating in workshops, inservices and talk shows to help promote the Foundation's work. Staff and board members are always available for inservice to your county medical society meetings and would welcome the opportunity to share information about indigent health care access in Arkansas.

Support from all sectors of the health care community is one of the keys to maintaining a successful program. Our family of health care professionals continues its commitment to serve those Arkansans who are poor and medically uninsured. Thank you for making AHCAF the type of program that has made a differ-

ence in many lives.

If you think you might be interested in donating a few minutes in your office to indigent care, but would like more information about the program, please contact one of the physician board members listed below or call 1-800-950-8233.

**Harold Hedges, M.D.**

Little Rock  
664-4810

**John Burge, M.D.**

Lake Village  
265-5343

**Simmie Armstrong, M.D.**

Pine Bluff  
535-6461

**Gilbert Buchanan, M.D.**

Little Rock  
664-4117

**John Hestir, M.D.**

DeWitt  
946-3637

**Joe Colclasure, M.D.**

Little Rock  
227-5050

**Ray Jouett, M.D.**

Little Rock  
661-9337

**Charles Chalfant, M.D.**

Fort Smith  
484-7100

**Joe Stallings, M.D.**

Jonesboro  
932-8121

## **Pulaski County Medical Society**

### **Eighth Councilor District**

#### **Fred Reddoch, Executive Director**

Under the leadership of President Joseph M. Beck, II, M.D., the Society enjoyed a productive and profitable year in 1994. Highlights of the year included:

- major revisions of the Society's bylaws
- presentation of two scholarships to University of Arkansas medical students
- administrative support of the Senior Physicians of Arkansas
- 3% growth in membership
- continued management of Pulaski County Medical Exchange which handled over 500,000 calls for PCMS members
- establishment of a 401K retirement plan for employees of the Society/Exchange
- membership meeting devoted to rapid growth in managed care entities across the state

The Pulaski County Medical Society anticipates another year of growth and activity under the 1995 president, John L. Wilson, M.D.

## **Ouachita County Medical Society**

### **Robert H. Nunnally, M.D., Secretary**

The Ouachita County Medical Society met five times during 1994. The organization of AMCO aroused intense interest among the members.

Dr. James Guthrie celebrated fifty years in medical practice. The Ouachita County Medical Society was saddened by the loss of Dr. J. L. Dedman.

During the year, county society president, Dr. William D. Dedman, became president of the Arkansas

Academy of Family Physicians.

At the end of the year, the organization of the Ouachita County Hospital was changed and for the first time a physician, Dr. Jerry R. Kendall, was elected to the hospital board of directors.

Every physician in Ouachita County became a member of the county medical society this year. Interest in legislative matters was sparked by State Senator and Dr. Vic Snyder at the Mustin Lake Fish Fry on October 4, 1994.

Perhaps the most significant development was an agreement to merge the on-call rosters of the majority of primary care physicians in Ouachita County.

## **Tri-County Medical Society**

### **George W. Jackson, M.D., Secretary/Treasurer**

In 1994, we saw the passing of Dr. Lewis G. Allen, one of the founding members of the Tri-County Medical Society.

The Tri-County Medical Society agreed to form the Tri-County AMCO and is encouraged to be participating in true health care reform.

## **Arkansas State Medical Board**

### **Peggy Pryor Cryer, Executive Secretary**

The members and officers of the Arkansas State Medical Board are W. Ray Jouett, M.D., Chairman; Warren M. Douglas, M.D., Vice Chairman; Alonzo D. Williams, M.D., Secretary; Mr. John Currie, Sr., Treasurer; John E. Bell, M.D., Owen H. Clopton, M.D., Steven F. Collier, M.D., Mr. Ted J. Feimster, David C. Jacks, M.D., Linda A. McGhee, M.D., C. E. Tommey, M.D., Rhys A. Williams, M.D., and James Zini, D.O.

Mr. Ted Feimster was appointed to the Board to fill the seat of Mr. Dewey Lantrip. Mr. Feimster is active in the AARP as well as other nongovernment boards in this state. He and his wife reside in Little Rock.

Licensing statistics: medical doctors and doctors of osteopathy - 7,197; medical doctors and doctors of osteopathy who practice in the state - 4,386; occupational therapists - 107; occupational therapist assistants - 35; physician trained assistants - 8; respiratory care therapists - 166; medical doctors and doctors of osteopathy licensed in 1994 - 353; medical doctors and doctors of osteopathy who sat for the FLEX exam - 6; medical doctors and doctors of osteopathy who sat for the SPEX exam - 5; medical doctors and doctors of osteopathy who sat for the USMLE exam - 4.

Summary of the Board's proceedings for 1994: individual complaints and discussions - 170; show cause orders issued - 18; voluntary surrender of license - 3; suspended license - 9; license placed on probation - 6; license revoked - 4; fined - 2; physicians requested to appear for further discussion - 15; physicians required to notify board before moving back to this state - 6.

Nature of the complaints: quality of care issues -



70; communication or doctor/patient conflicts - 15; emergency room treatment - 9; alcohol/drugs - 10; billing discrepancies - 14; lack of physician response to patient - 8; failure to release medical records - 16; overcharging - 3; sexual harassment - 1; front office personnel - 5; advertising - 3; actions taken by other state boards - 17; practicing/allowing to practice without a license - 4.

Public hearings were held on Regulation #9 and it was repealed.

## Financial Report - June 30, 1994

### Current assets

Cash	\$440,976
Certificates of deposit	1,105,348
Accrued interest receivable	10,898
<b>Total current assets</b>	<b>\$1,557,222</b>

### Fixed assets - at cost

Furniture, fixtures, and equipment	\$78,832
Less accumulated depreciation	(45,671)
Net fixed assets	\$33,161
<b>Total assets</b>	<b>\$1,590,383</b>

### Liabilities and Fund Balances

#### Current liabilities

Accounts payable	\$314
Deferred income	64,250
Accrued payroll taxes	234
Accrued wages	4,171
Accrued unused vacation pay	6,642
<b>Total current liabilities</b>	<b>\$75,611</b>

<b>Fund Balances</b>	<b>\$1,514,772</b>
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<b>Total Liabilities and Fund Balances</b>	<b>\$1,590,383</b>
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## Arkansas Department of Health Sandra B. Nichols, M.D., Director

I am pleased to provide the Arkansas Medical Society with a summary of the major activities of the Arkansas Department of Health during 1994. As your new State Health Officer, this year was filled with excitement, challenges and rewards. This report reflects the diversity of the Department of Health. Everyday, Arkansans are protected by thousands of public health measures - many of them invisible. Public health programs prevent disease, protect our housing, food and water, promote healthy behavior, monitor the health condition of our citizens, provide services to improve access to health care and respond to health crises. I am confident this report will highlight for you the ways the Department of Health is striving to protect and improve the health

of all Arkansans.

### Grants and Funding

- Awarded grants to 14 health care providers for the purpose of improving and enhancing rural health care delivery. The Rural Health Services Revolving Fund provided \$84,516 to assist these providers establish or retain primary care services, support improvement or transition initiatives of the local hospital, provide needed emergency medical services, and assist other efforts in supporting the health care system of local communities. Grantees are required to meet rural criteria and match the grant award on a 50/50 cash basis.
- Approved Local Health Unit construction/renovation grants totaling \$960,000 from the Department's Health Building and Local Grant Trust Fund for Crittenden (\$150,000), Miller (\$500,000), Scott (\$10,000), and White (\$300,000) counties.
- Provided funding for a one-half time Certified Substance Abuse Counselor to work at the Arkansas State Hospital (ASH) to address the substance abuse treatment needs of ASH patients.
- Provided funding and operating standards for the pilot Injector Drug User Clinic operated by the University of Arkansas for Medical Sciences. Within six (6) months, the clinic, which uses prescription methadone as an adjunct to treatment, had reached its projected first year patient capacity of 50 individuals in treatment.
- Continued funding for three (3) Pregnant and Parenting Women Living Centers begun in FY 93. These programs provide specialty addiction treatment services to pregnant women and women with small children, allowing them to live in a supportive environment with their children for up to two (2) years.
- Added funding for early intervention services to three Street Outreach Programs in Washington, Pulaski, and Jefferson Counties. These programs address the critical relationship of injection drug use and HIV/AIDS transmission.
- Received funding from the Center for Substance Abuse Treatment - Pregnant, Post-partum Women and Infants program for a demonstration grant to serve addicted women and women with children. The services are provided by Arkansas Childrens Hospital, Women and Children's Recovery Center program.
- Received a nutrition intervention grant from the Centers for Disease Control and Prevention to assist in

increasing Arkansans' consumption of fruit and vegetables. This grant creates a marketing campaign that targets produce festivals, develops a coalition of public and private agencies and industries, and expands and underwrites the campaign to provide educational materials and programs.

- Received a grant to provide dump stations for disposal of sewage from houseboats on Lake Ouachita and Greers Ferry Lake.
- Initiated, through new federal grant funds, a fire-related burn prevention program to reduce fire deaths and injuries through the distribution of smoke detectors, surveillance and education. This program grew from a pilot program in June, 1994, where the Little Rock Fire Department, the Safe Kids Coalition and Neighborhood Alert volunteers installed 70 smoke detectors in 51 homes in high risk neighborhoods.
- Received a grant from the Centers for Disease Control and Prevention to establish a statewide cancer registry.
- Awarded Prevention Service Program grants to 28 community-based non-profit organizations to implement alcohol, tobacco and other drug abuse prevention activities that target high-risk youth.
- Awarded four (4) Community Youth Activity grants in the Delta Region of Arkansas to create minority specific alcohol, tobacco and drug abuse prevention activities.
- Awarded ten (10) Community Coalition grants with local community groups to plan and implement alcohol, tobacco, and other drug abuse programs using existing community resources.
- Provided on going funds to 28 community-based non-profit treatment providers who deliver alcohol and other drug treatment services to adults and adolescents.
- Initiated Housing Opportunities for persons with AIDS in cooperation with AIDS Outreach of Arkansas using new HUD grant funds. Low income persons with HIV and AIDS and their families will be eligible for housing assistance and supportive services through this program.
- Entered into an agreement with the Environmental Protection Agency to establish a lead-based paint program. The scope of work requires the Department to establish, modify and update lead-related

databases and information systems, to provide more in-depth follow-up on lead-based paint inspections that reveal a source of lead exposure in residential areas and in industry sites where high blood lead levels are detected in workers, and to determine the need and feasibility of expanding state regulatory and legislative authority with regard to lead.

#### **Collaboration/Partnerships**

- Opened the Supervised Treatment and Education Program (STEP) drug diversion court, as a cooperative venture between the Department, the Arkansas Administrative Office of the Courts and the Twenty-four Hour Treatment Center.
- Participated in a collaborative effort to serve dually diagnosed individuals as a result of their committing a crime and being adjudicated insane and committed to the Arkansas State Hospital.
- Worked with the city of Little Rock in securing substance abuse treatment funding from the city's half-cent sales tax. This is the first time that a local municipality in Arkansas has provided such services for its residents.
- Collaborated with UAMS and Arkansas Childrens Hospital in developing educational and treatment programs designed to reduce the maternal-fetal transmission of HIV.
- Developed, with the University of Arkansas for Medical Sciences, a study to track the spread of tuberculosis in Arkansas.
- Collaborated with the Arkansas Spinal Cord Commission and the Arkansas Game and Fish Commission on a public campaign to educate hunters on deer stand safety.
- Worked with the Arkansas Immunization Coalition, a statewide group of civic groups, businesses, media and other public and private organizations, to develop a plan to age-appropriately immunize 90% of Arkansas' two-year olds by the end of 1996.
- Established the Arkansas Community Planning Group, an HIV prevention community planning body, to develop a statewide plan for HIV prevention activities.
- Participated in the national steering committee for the Mississippi Delta Project. This project encompasses 219 counties along the Mississippi River in Arkansas, Illinois, Kentucky, Louisiana, Mississippi, Missouri, and Tennessee. The overall goal of the



Delta Project is to reduce and, where possible, prevent key environmental hazards from impacting on public health and the environment, with emphasis on persons of color and disadvantaged communities.

- Provided technical assistance that resulted in an Environmental Protection Agency grant to the Leadership Development Council in Little River County. The grant focused on environmental clean-up and beautification, youth employment, community education on environmental and social justice issues, and development of on-going linkages between organized groups and state and local agencies.

- Coordinated Department activities with the Alternative Parental Support Program. This program was initiated in Union County in conjunction with the Office of Child Support Enforcement and other agencies to provide services that promote parental responsibility to non-custodial parents. Garland and Pulaski counties are in the process of replicating this model.

- Developed a Lay Health Advisor program for the Little Rock Housing Authority. The program provides speakers and resource information on health topics for residents in housing development.

- Worked in conjunction with the federal Center for Substance Abuse Treatment to establish the Project for Addictions Counselor Training (PACT) at the Mid-South Center on Alcohol and other Drug Abuse Problems at the University of Arkansas at Little Rock. PACT provides structured education and internship opportunities for individuals who wish to become certified substance abuse counselors. The project currently has 315 participants and gives priority in selection to individuals of minority and special populations.

#### **Personal Health Services**

- Tested eleven (11) Arkansans experiencing acute respiratory distress associated with Hantavirus Pulmonary Syndrome. All results were negative. Physicians throughout the state submitted patient blood samples to the Department for testing by the Centers for Disease Control and Prevention. Approximately 200 rodents were trapped and tested for the Hantavirus. A single mouse, *Ochrotomys Nutalli*, was found to be positive, indicating the presence of the virus in Arkansas. Although no human cases have been reported in Arkansas, 100 human cases have been reported in the United States from 20 states. Of these, 52 have been fatal.

- Documented an increase in Meningococcal Meningitis cases from 23 in 1993 to 45 in 1994. One small town, Dierks, Arkansas, had three cases in a three month period. Because of the high incidence, a clinic offering vaccination to the public was held.

- Identified an outbreak of Aseptic Meningitis in Hampton, Arkansas (Population 1,560). Eleven patients in a three month period tested negative for Neisseria Meningitis, the cause of Meningococcal Meningitis. Blood and stool cultures of these individuals were positive for the Enterovirus Echo 30. These results indicate that enteroviruses should be considered as a possible cause of reported cases of Aseptic Meningitis and unspecified viral encephalitis.

- Implemented the federal Vaccines for Children program which expanded provision of free vaccine to eligible children in all local health units effective October 1, 1994.

- Provided vaccine to two new "after-hours" immunization clinics in hospitals and two mobile clinics - one operated by the Department and one by a hospital.

- Opened the Department's Mobile Health Services Unit, which delivers immunizations, WIC nutrition services, child health screenings and referrals for other health services in Northwest Arkansas.

- Increased the number of hospitals providing Hepatitis B immunizations to newborns from 23 in December, 1993, to 37 in December, 1994.

- Investigated one of Arkansas' largest Hepatitis A outbreaks with over 100 cases. The Department assisted in locating the source and provided immunizations to prevent further spread.

- Provided treatment, referral and support services to over 860 HIV-positive patients through five local consortia.

- Initiated the Delta Community Integrated Service System Project. The project is located in Ashley and Chicot counties and is based on expanded public/private partnerships. Home visiting activities and one-stop shopping service enhancements are used to improve the health status of women and children.

- Increased the percent of breastfeeding WIC participants from 7% in 1993, to 9% in 1994. This represents a three-fold increase over the 1990 rate.

- Developed infant hearing screening rules and regulations to ensure identification of children at risk of hearing loss through prompt auditory evaluation.

**Table 1**

**Personal Health Services - Selected Statistics**

<b>Services</b>	<b>FY 94</b>
<b>Maternal and Child Health</b>	
Child Health Patients	39,018
EPSDT Screenings	56,893
Family Planning Patients	68,922
Maternity Patients	16,299
WIC Clients Served	147,074
<b>Communicable Disease Control</b>	
AIDS Testing and Counseling	67,489
TB Skin Tests	76,776
Immunizations	
HIB	92,043
Polio	107,808
DPT	131,477
MMR	45,392
<b>In Home Services</b>	
Patient Admissions	19,292
Recovering Patient Visits	525,849
Chronic Patient Visits	45,964
Frail Patient Visits	846,855
Hospice Patient Days	22,816
<b>Substance Abuse Treatment</b>	
Adults Served	10,678
Adolescents Served	632

**Environmental Health Services**

- Isolated causative agents of foodborne illness outbreaks involving hundreds of victims at a community picnic in Norman, Arkansas, and four elementary schools in Pine Bluff, Little Rock, Norfolk and Jonesboro.
- Developed and implemented methodologies for testing public drinking water for additional organic and inorganic substances as required under the federal Safe Drinking Water Act.
- Provided technical support to over 60 community public water systems to assist in preventing contamination of wells used as public water supplies.
- Participated in the national investigation of salmonella contamination of Schwann's ice cream.
- Participated in a full-scale federally evaluated exercise at Arkansas Nuclear One (ANO) to assure that

the public is protected in the event of a release of radioactive material from the facility. The participants included the counties within a five-county emergency planning zone around ANO, as well as the Pope County Ambulance Service and St. Mary's Hospital.

- Revised regulations regarding radiation protection standards in order to comply with new, lower exposure limits for radiation workers and the public set by federal regulation. Among other revisions, the new limits address exposures from internally deposited radionuclides, and, for the first time, address exposure to the embryo/fetus of a pregnant radiation worker.
- Received designation from the U.S. Food and Drug Administration (FDA) as an accrediting body under the Mammography Quality Standards Act of 1992. Thirty-eight mammography facilities have received provisional certificates from the FDA through this program since October 1, 1994.

**Table 2**

**Services to Protect the Environment and Health of the General Public - Selected Statistics**

<b>Services</b>	<b>FY 94</b>
<b>Food Service Establishment</b>	
Inspections	21,838
<b>Septic Tank</b>	
Permits	8,959
<b>Radiological Equipment</b>	
Inspections	606
<b>Laboratory Samples</b>	
Analyzed	503,232
<b>Environmental Complaints</b>	
Investigated	8,419
<b>Water and Wastewater Plans</b>	
Reviewed	2,665

**Technical and Support Services**

- Continued development of a comprehensive, statewide trauma care system. Current federally funded projects include implementing a pre-hospital data collection system using an improved emergency medical services encounter form and computerized optical scanner, completing a survey of trauma care resources, installing free trauma registry software in hospitals desiring to collect trauma data, establishing a statewide trauma registry, and developing trauma center designation standards.



- Assisted Arkansas counties in increasing the availability of the three-digit 9-1-1 emergency number system. Currently only 24 of the 75 counties in Arkansas have the 9-1-1 system available to their citizens; 39 counties have passed mandates for future implementation.
- Established, in cooperation with the Office of Emergency Services, a placement inventory of nerve agent antidote kits in the vicinity of the Pine Bluff Arsenal for the Chemical Stockpile Emergency Preparedness Program (CSEPP). The Department will track locations, quantities, and shelf life of antidotes pre-positioned in emergency response locations.
- Developed and implemented blood mercury analysis to provide data in support of the Governor's Mercury Task Force.
- Initiated a pilot study of stool samples to assist in the determination of whether cryptosporidium is a problem in Arkansas.
- Revised state rules and regulations to improve HIV reporting.
- Established a statewide head injury registry.
- Distributed new Campaign for Healthier Babies coupon books, posters and brochures to Arkansas physicians.

The coupon books provide money-saving coupons which can be redeemed by pregnant women only after they have received prenatal care. The Campaign's goal is to increase the number of pregnant women who receive early and regular prenatal care.

The health care system was the focus of intense scrutiny and debate in 1994. Health Department staff have devoted a great deal of effort to this process. I believe the key to "health care reform" is to focus on "health". We need a health care system capable of anticipating, controlling and preventing disease, in addition to treating it. To improve upon our current system will require a strong public health system working closely with the medical care system. We must work together in order to assure that the full range of appropriate health services are available for all our citizens.

My goal is to strengthen areas that will improve and protect the health of our citizens. Community-based planning, public/private partnerships, health promotion and education activities, and improving access to care are areas on which I plan to concentrate as Director of the Department of Health. To protect our citizens' health and provide them with quality, affordable and accessible health care will require a continued commitment to cooperation between the members of the Arkansas Medical Society and the Arkansas Department of Health. I look forward to continuing to work with you in 1995 to help keep your hometown healthy. ■

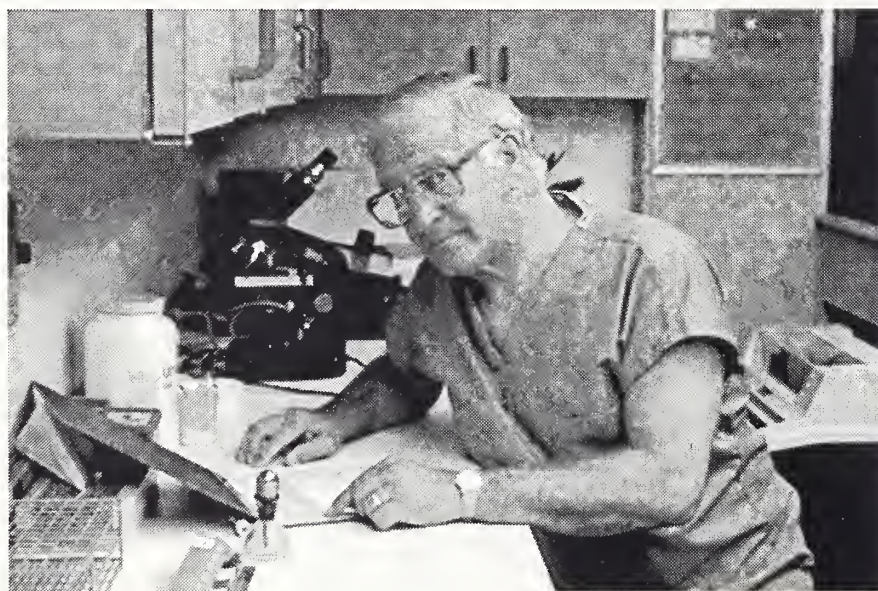
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# 1995 MED-PAC CONTRIBUTORS

as of March 15, 1995

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**Arkansas County**

Hoy Speer, Jr.  
Marolyn Speer

**Baxter County**

Monty Barker  
Daniel Chock  
James Clarke  
Stacey Johnson  
Thomas Knox  
Paul Neis  
David Sward  
Joe Tullis

**Benton County**

James Arkins  
John Cuchia  
Michael Platt

**Boone County**

Carlton Chambers  
Sue Chambers  
Robert Langston  
Mrs. Robert Langston  
Charles Ledbetter

**Carroll County**

Oliver Wallace

**Columbia County**

Robert Parkman

**Conway County**

Keith Lipsmeyer

**Craighead/Poinsett County**

Connie Hiers  
Robert Landry

**Crawford County**

Charles Jennings

**Crittenden County**

G. Edward Bryant  
Jacinto Hernandez  
Bertram Kaplan  
Samuel Meredith  
Steve Schoettle  
Mrs. Steve Schoettle

**Dallas County**

Don Howard

**Desha County**

Peter Go

**Garland County**

Richard Dunn  
Bimlendra Sharma

Gary Slaton

**Greene/Clay County**

Roger Cagle  
Adalberto Fonticiella  
Marion Hazzard  
Clarence Kemp  
Larry Lawson  
William Rollins  
John Sellars  
Mack Shotts  
Vern Ann Shotts  
Dwight Williams

**Hempstead County**

Lloyd Mercer

**Independence County**

John Baker  
Lloyd Bess  
Lackey Moody  
William Waldrip

**Jackson County**

Jabez Jackson  
Hon Poon

**Jefferson County**

Calvin Bracy  
Charles Clark  
John Crenshaw  
Robert Gullett  
William Joe Jones  
John Lytle  
Mike McFarland  
William Nuckolls  
Erma Washington

**Mississippi County**

Eldon Fairley  
Joe Jones

**Ouachita County**

William Dedman

**Phillips County**

Prasad Athota  
Francis Patton  
P. Vasudevan

**Pope County**

Joe Crumpler, Jr.  
William Galloway  
Ted Honghiran  
James M. Kolb, Jr.  
Mrs. James M. Kolb, Jr.  
Douglas Lowrey  
Don Riley  
Darrell Speed

Stanley Teeter

**Pulaski County**

Christopher Adams  
Roger Anderson  
Glen Baker  
John Baker  
David Barclay  
Barry Baskin  
Rex Bell  
David Bevans  
James Billie  
William Bishop  
Mrs. William Bishop  
Anthony Bucolo  
Dennis Burrow  
James Campbell  
Kelsy Caplinger  
Roger Clark  
Joe Colclasure  
Warren Douglas  
Mr. James Dunlap  
Thomas Eans  
Rex Easter  
Thomas Frazier  
Jim Gilbert  
William Golden  
Don Greenway  
David Hall  
Stuart Harris  
Vale Harrison  
Bruce Johnson  
William Jones  
R. A. Jordan  
Reed Kilgore  
Payton Kolb  
Mr. Ken LaMastus  
Timothy Langford  
Jay Lipke  
Charles Logan  
Paula Lynch  
Stephen Marks  
Kenneth Martin  
Debra Morrison  
James Mulhollan  
Robert Murphy  
Mrs. Robert Murphy  
Mayne Parker  
Robert Power  
Robert Powers  
Carl Raque  
J. F. Redman  
Charles Rodgers  
Mrs. Charles Rodgers  
E. H. Saer  
Scott Schlesinger  
John Shock  
Douglas Smart  
David Smith

Jack Sternberg

Doug Stokes  
Jan Sullivan  
David Taylor  
Berry Thompson  
George Warren  
Edward Weber  
James Weber  
John Wilson  
Thomas Wortham  
Paul Wylie

**Saline County**

Joe Martindale

**Sebastian County**

Roger Bise  
Joe Dorzab  
Greg Jones  
John Swicegood  
Paul Wills

**Tri-County**

Jim Bozeman  
Michael Moody

**Union County**

Bert Dougherty  
Kenneth Duzan  
Wayne Elliott  
Walter Giller  
Chester Jenkins  
Diana Lucas  
Gurprem Kang  
Richard Pillsbury

**Washington County**

James Arnold  
James Cherry  
Ted Fish  
Walter Harris  
Oscar Henderson  
Anthony Hui  
Mrs. Anthony Hui  
C. R. Magness  
William McGowan  
William Mills  
Mike Morse  
John Park  
Joseph Ross  
Norman Snyder

**White County**

Daniel Davidson  
John Henderson  
Garrett Kinley  
Ben Lowery

# 1994 MED-PAC CONTRIBUTORS

## Arkansas County

John Hestir  
Hoy B. Speer, Jr.  
Marolyn Speer

## Baxter County

Monty Barker  
Daniel Chock  
Stacey Johnson  
William Landrum  
Peter MacKercher  
Paul Neis  
David Sward  
Joe Tullis

## Benton County

Michael Platt  
Richard Rodkin

## Boone County

Thomas Bell  
Carlton Chambers  
Sue Chambers  
Charles Klepper  
Robert Langston  
Charles Ledbetter  
Don Vowell

## Carroll County

Oliver Wallace

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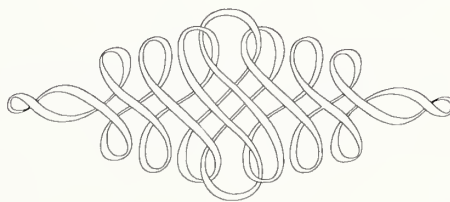
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## Cardiology Commentary and Update

Joe B. Calkins, Jr., M.D.\*  
Eugene S. Smith, III, M.D.\*  
Marvin Murphy, M.D.\*\*  
J. David Talley, M.D.\*

### VANQWISH: Risk Stratification of Non Q-Wave Myocardial Infarction

#### INTRODUCTION

A non Q-wave myocardial infarction (MI) is a syndrome that includes symptoms compatible with an acute ischemic coronary event, release of enzymes indicative of myocardial cell death, and lack of new pathologic Q waves on the electrocardiogram. This issue of CCU will review the pathophysiology of non Q-wave MI and discuss methods of risk stratification of a patient who has sustained this type of infarction.

#### THE "EPIDEMIC" OF A NON Q-WAVE MI

A non Q-wave MI is not just a "little heart attack." This understanding reflects recent developments. First, the true incidence of this condition is increasing due to aggressive pharmacological and mechanical treatment of large, Q-wave MI's. In fact, non Q-wave MI's account for 30-40% of all MI's.<sup>1</sup> Second, there is improved recognition due to heightened sensitivity of diagnostic laboratory tests. Finally, the natural history and specific treatment options of non Q-wave MI are now defined.

#### CLINICAL, ANGIOGRAPHIC FEATURES AND NATURAL HISTORY

When compared with Q-wave MI's, non Q-wave MI's are smaller and cause less deterioration of left ventricular systolic function. Therefore, there is less

congestive heart failure with these MI's compared to Q-wave MI's.<sup>2</sup> At cardiac catheterization, there is less frequent complete occlusion of the infarct artery with non Q-wave MI's than is seen with Q-wave MI's. There is also more extensive collateral circulation. These findings account for the greater incidence of recurrent ischemic events including angina, MI extension, and re-MI following non Q-wave MI's compared to Q-wave MI's.<sup>2</sup>

The in hospital mortality with a non Q-wave MI is half that of a Q-wave MI. However, due to recurrent ischemic events, the mortality of non Q-wave MI's "catches up" so that the long-term survival between the two conditions is similar (*Figure 1*).<sup>1</sup> Characteristics of re-MI after a non Q-wave MI are systemic arterial hypertension, prior MI, age greater than 70 years, and persistent ST segment depression.<sup>1,3,4</sup>

#### TREATMENT

Aspirin and beta-blocking medications decrease the rate of recurrent ischemic events following both non Q- and Q-wave MI's. Thrombolytic agents are not of benefit in non Q-wave MI's.

Diltiazem (Cardizem<sup>®</sup>, Marion Merrell Dow Inc., Kansas City, MO) has become a mainstay in the treatment of non Q-wave MI's. The Diltiazem Reinfarction Study showed that diltiazem begun within three to 15 days after non Q-wave MI decreased the rate of re-MI, but not mortality, for six months.<sup>5</sup> The Multicenter Diltiazem Postinfarction Trial noted a reduction of cardiac events in patients with normal but not depressed left ventricular systolic function.<sup>6</sup>

These trials showed variable treatment effects according to clinical and angiographic characteristics. Right now, there is no evidence that an aggressive strategy favorably influences the clinical outcome of patients who have non Q-wave MI. The higher incidence of recurrent ischemic events and the lack of a

\* Drs. Calkins, Smith, and Talley are with the University of Arkansas for Medical Sciences, Division of Cardiology, Department of Internal Medicine.

\*\* Dr. Murphy is with the John L. McClellan Memorial Veterans Hospital, Division of Cardiology.

*Acknowledgment: The authors appreciate the assistance of Anita Bierle, RN, and Judy Nagel in the preparation of the manuscript.*



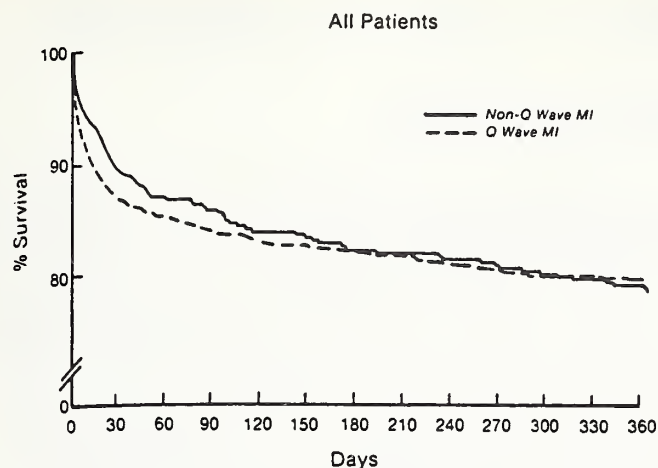


Figure 1. Non Q-wave myocardial infarctions (solid, upperline) are associated with less early mortality than Q-wave infarctions (dotted, lower line). Due to an increased rate of recurrent ischemic events, there is no difference in 1 year mortality between the two types of infarctions. (From: Nicod P, Gilpin E, Dottrich H, et al. Short- and long-term clinical outcome after Q-wave and non Q-wave myocardial infarction in a large patient population. *Circulation* 1989;79:528-536, with permission.)

## CONCLUSIONS

Non Q-wave MI's are a common, heterogeneous group of disorders associated with low early mortality but high risk of recurrent ischemic events compared with Q-wave MI's. The VANQWISH trial will provide insights into the optimal diagnostic and treatment strategy for patients with non-Q-wave MI's.

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1. Nicod P, Gilpin E, Dottrich H, et al. Short- and long-term clinical outcome after Q-wave and non Q-wave myocardial infarction in a large patient population. *Circulation* 1989;79:528-536.
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4. Schechtman KB, Capone RJ, Kleiger RE, et al. Differential risk patterns associated with 3 months as compared with 3 to 12 month mortality and reinfarction after non Q-wave myocardial infarction. *J Am Coll Cardiol* 1990;15:940-947.
5. Gibson RS, Boden WE, Theroux P, et al. Diltiazem and reinfarction in patients with non-Q wave myocardial infarction: Results of a double-blind, randomized, multicenter trial. *N Engl J Med* 1986;315:423-429.
6. The Multicenter Diltiazem Postinfarction Trial Research Group. The effect of diltiazem on mortality and reinfarction after myocardial infarction. *N Engl J Med* 1988;319:385-392.

proven benefit of invasive over non-invasive evaluation in asymptomatic or minimally symptomatic patients following a non Q-wave MI is the springboard for the VANQWISH Trial.

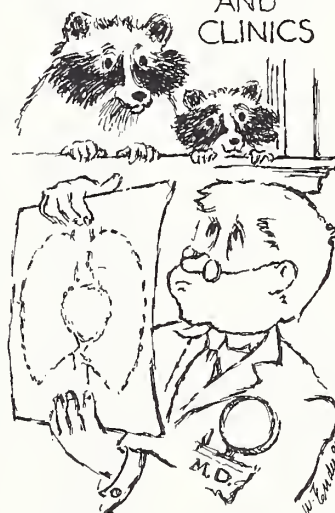
## THE VANQWISH TRIAL

The VANQWISH (V.A. Non-Q-Wave Infarction Strategies In-Hospital) Trial is ongoing at the John L. McClellan Memorial Veterans Hospital. It is a multicenter, prospective, randomized study. The hypothesis tested is that patients with non Q-wave MI's have equivalent outcomes when evaluated by either a strategy of early, coronary angiography or deferred angiography guided by clinical needs or findings consistent with ischemia on noninvasive testing. The primary endpoint is death plus nonfatal re-MI. Secondary objectives include validation of several risk factors (prior MI, administration of thrombolytic therapy, infarct location, persistent ST-segment depression, and age) and comparison of costs, functional status, the incidence of myocardial revascularization, and hospital re-admission between the two testing methods.

Patients are randomized to one of two strategies. The first is cardiac catheterization to identify anatomic risk followed by additional noninvasive evaluation and/or revascularization as deemed necessary. The second strategy is the use of radionuclide ventriculography and scintigraphy to assess functional risk with coronary angiography and revascularization performed only for clinical need or findings consistent with ischemia with noninvasive evaluation.

The trial will be completed after a 27-month enrollment period with 12 months of follow up.

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# Arkansas HIV/AIDS Report 1983-1995

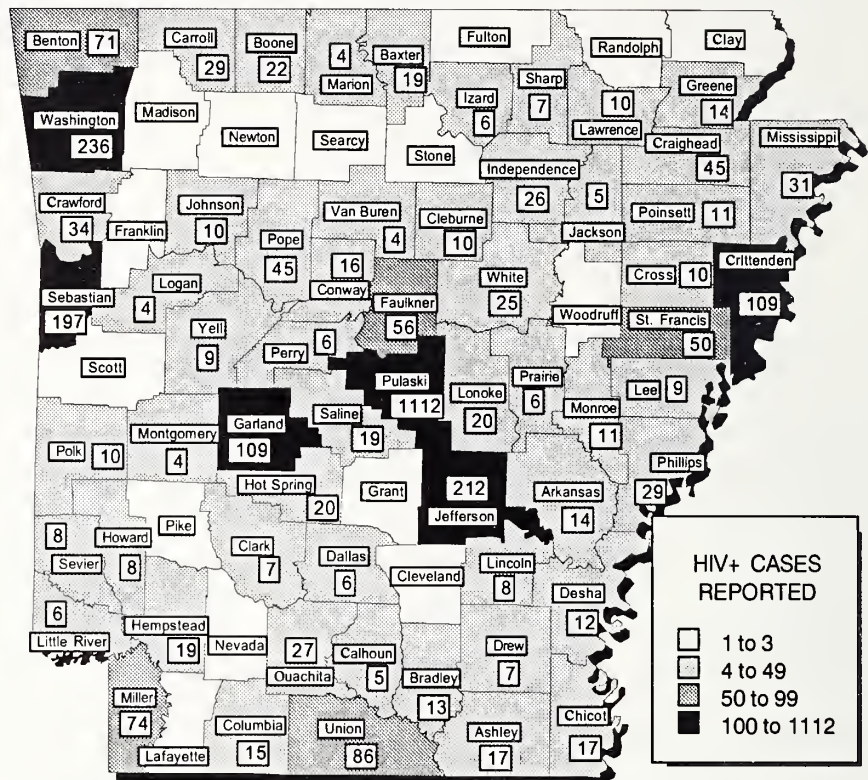
## HIV In Arkansas

### Reporting Requirements

HIV and AIDS case reporting by name and address is required by Act 967 of 1991 and the rules and regulations of the Arkansas Board of Health. Reporting is required at the time a person tests positive and again when they become symptomatic with AIDS. Those required to report include: physicians, nurses, infection control practitioners/infection control committees, laboratory directors, medical directors of nursing homes and home health agencies, clinic administrators, program directors of State agencies and/or persons as may be required by the Board of Health.

Questions regarding reporting forms and requirements may be directed to Jan Bunch, HIV/AIDS Surveillance Administrator, at (501) 661-2387.

**NOTE:** AIDS statistics are a subset of HIV statistics.



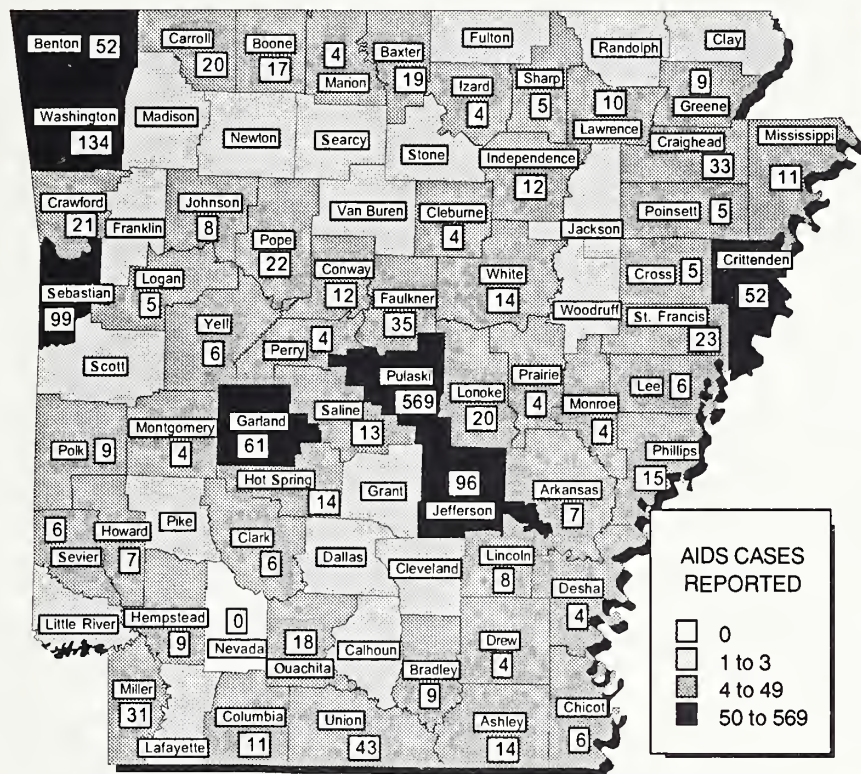
HIV		83-87	1988	1989	1990	1991	1992	1993	1994	1995	Total	%
SEX	Male	100	215	248	413	400	392	352	367	87	2,574	83
	Female	8	26	37	68	85	81	94	90	30	519	17
AGE	<5	1	1	2	8	13	6	3	7	1	42	1
	5-12	0	1	1	5	1	2	1	0	0	11	0
	13-19	0	7	8	14	19	25	11	22	2	108	4
	20-29	33	110	123	183	149	156	175	145	41	1,115	36
	30-39	44	86	104	196	208	179	168	171	49	1,205	39
	40-49	22	25	35	56	70	67	65	77	15	432	14
	>49	8	6	11	17	22	38	23	35	9	169	6
RACE	White	87	170	174	328	298	291	277	258	79	1,962	63
	Black	21	69	106	151	184	173	163	183	36	1,086	35
	Other/Unknown	0	2	5	2	3	9	6	16	2	45	2
RISK	Male/Male Sex	64	133	139	241	241	257	238	222	19	1,554	50
	Injection Drug User (IDU)	13	30	48	73	96	75	64	71	11	481	16
	Male/Male Sex & IDU	19	23	24	32	30	32	26	22	3	211	7
	Heterosexual	5	23	26	59	64	67	98	82	10	434	14
	Transfusion	5	5	4	6	8	10	0	1	0	39	1
	Perinatal	1	1	2	8	13	8	4	7	0	44	2
	Hemophiliac	0	0	6	18	5	6	2	3	1	41	1
	Undetermined	1	26	36	44	28	18	14	49	73	289	9
HIV CASES BY YEAR		108	241	285	481	485	473	446	457	117	3,093	100

Arkansas Department of Health HIV/AIDS Surveillance Program



# Arkansas HIV/AIDS Report

## 1983-1995



Of the 3,093 Arkansans reported to be HIV+, 1,687 have been diagnosed with AIDS. (3/14/95)

### AIDS In Arkansas

#### Reporting Requirements

HIV and AIDS case reporting by name and address is required by Act 967 of 1991 and the rules and regulations of the Arkansas Board of Health. Reporting is required at the time a person tests positive and again when they become symptomatic with AIDS. Those required to report include: physicians, nurses, infection control practitioners/infection control committees, laboratory directors, medical directors of nursing homes and home health agencies, clinic administrators, program directors of State agencies and/or persons as may be required by the Board of Health.

Questions regarding reporting forms and requirements may be directed to Jan Bunch, HIV/AIDS Surveillance Administrator, at (501) 661-2387.

**NOTE:** AIDS statistics are a subset of HIV statistics.

AIDS		83-87	1988	1989	1990	1991	1992	1993	1994	1995	Total	%
SEX	Male	85	77	70	170	176	250	336	253	53	1,470	87
	Female	5	6	10	20	25	35	64	42	10	217	13
AGE	<5	0	1	1	6	6	3	2	1	1	21	1
	5-12	0	1	0	1	1	0	1	0	0	4	0
	13-19	0	0	0	4	3	2	4	3	0	16	1
	20-29	31	27	24	55	57	81	110	67	13	465	28
	30-39	39	36	41	78	80	128	178	133	31	744	44
	40-49	15	10	7	35	41	52	78	61	11	310	18
	>49	5	8	7	11	13	19	27	30	7	127	8
RACE	White	74	61	58	141	134	206	275	190	41	1,180	70
	Black	16	20	21	47	66	75	121	102	20	488	29
	Other/Unknown	0	2	1	2	1	4	4	3	2	19	1
RISK	Male/Male Sex	55	59	50	122	120	182	237	164	33	1,022	61
	Injection Drug User (IDU)	12	4	11	18	29	45	70	44	6	239	14
	Male/Male Sex & IDU	16	6	6	18	17	21	26	23	2	135	8
	Heterosexual	5	3	7	11	12	24	52	38	4	156	9
	Transfusion	2	7	3	7	11	3	2	4	0	39	2
	Perinatal	0	1	1	6	6	3	3	1	1	22	1
	Hemophiliac	0	1	1	5	5	4	5	6	2	29	2
	Undetermined	0	2	1	3	1	3	5	15	15	45	2
AIDS CASES BY YEAR		90	83	80	190	201	285	400	295	63	1,687	100

Arkansas Department of Health HIV/AIDS Surveillance Program



# New Members

## FORT SMITH

**Beene-Lowder, Hannah Lou**, Pediatrics. Medical Education, UAMS, 1984. Internship/Residency, AR Children's Hospital/UAMS, 1985/1987. Board certified.

**Keyashian, Mohsen**, Internal Medicine. Medical Education, Tehran University, Tehran, Iran, 1973. Internship/Residency, Loyola University, Hines, IL, 1991/1993.

**Robinson, Nancy Carol**, Pediatrics. Medical Education, University of Oklahoma, 1976. Internship/Residency, Henry Ford Hospital, Detroit, MI, 1977/1979. Board certified.

**Rodgers, Brian H.**, General Practice. Medical Education, Medical School University of Health Sciences, Kansas City, MO, 1988. Internship, Lakeside Hospital, Kansas City, MO, 1989.

## LITTLE ROCK

**Abraham, Jacob E.**, Anesthesiology. Medical Education, Medical College of Georgia, 1990. Internship, Georgia Baptist Hospital, Atlanta, 1991. Residency, Vanderbilt University Medical Center, Nashville, TN, 1994. Board eligible.

**Brooks, Andrew Thomas**, Orthopedic Surgery. Medical Education, University of Oklahoma, 1989. Internship/Residency, UAMS, 1990/1994.

**Chai, Sandra E.**, Pulmonary Disease. Medical Education, University of Oklahoma College of Medicine, 1984. Residency, UAMS, 1991. Fellowship, UAMS, 1994. Board certified.

**Trigg, Laura Ballard**, Rheumatology. Medical Education, UAMS, 1981. Internship/Residency, University of Kansas, 1982/1984. Board certified.

## PINE BLUFF

**Malik, Shamim A.**, Psychiatry. Medical Education, King Edward Medical College, Lahore, Pakistan, 1974. Internship, Lahore General Hospital, 1976. Residency, Harlem Medical Center, New York, NY, 1994. Board eligible.

## ROGERS

**Papageorge, Dean William**, Obstetrics & Gynecology. Medical Education, University of Missouri, Columbia, 1981. Internship/Residency, University of Missouri, 1982/1985. Board certified.

## TEXARKANA

**Campanini, D. Scott**, Radiology. Medical Education, Hahnemann University, Philadelphia, PA, 1983. Internship, Akron City, 1984. Residency, Ohio State University, 1991. Board certified.

**Hollingsworth, Charles E., II**, Plastic Surgery/Otolaryngology. Medical Education, University of Texas Medical School, San Antonio, 1976. Internship, Keesler USAF Medical Center, Keesler AFB, MS, 1977. Residency, Wilford Hall USAF Medical Center, Lockland AFB, TX, 1981. Board certified.

## RESIDENTS

**Samuel, Vincent K.**, Anesthesiology. Medical Education, Universidad Tecnologia De Santiago, Dominican Republic, 1985. Internship/Residency, University of Tennessee Center for Health Sciences, Memphis.

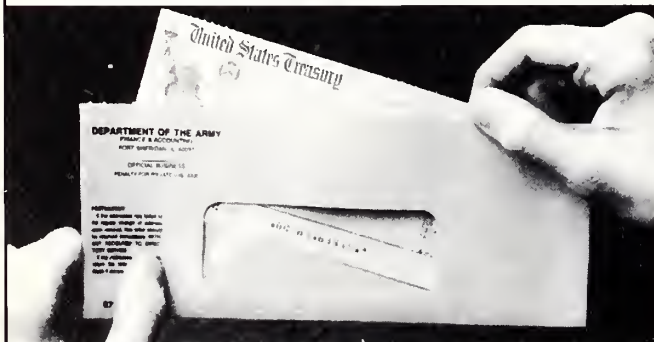
## PHYSICIAN RESIDENT ALERT: IF YOU COULD USE OVER \$25,000 A YEAR— ANSWER THIS AD.

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AMS Lobbyist Lynn Zeno confers with Patient Protection Act sponsors Senator Bill Gwatney and Representative Mike Wilson during the House Public Health, Welfare and Labor Committee hearing on February 21.

Patient

Protection

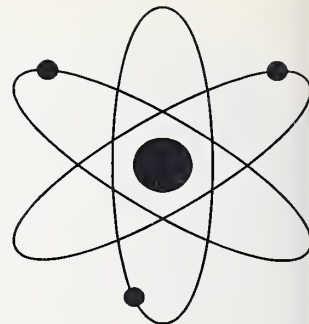
Act

Governor Jim Guy Tucker signed the Patient Protection Act (Any Willing Provider) at 4:30 p.m. on Wednesday, March 1, 1995. The act will become effective 90 days after the adjournment of the legislative session.

Only fourteen other states have some form of any willing provider law. Arkansas' is the most comprehensive. It includes virtually every provider and requires participation by every health benefit plan with the exception of self-funded Erisa plans and other federally exempt programs.

Following weeks of grass roots lobbying by health care providers and their patients, the Governor signed the bill which requires health benefit plans to allow participation by qualified providers who agree to adhere to contract terms. This bill, which generally pitted patients and providers against the insurance companies, has been the most hotly debated issue of the 80th General Assembly. ■

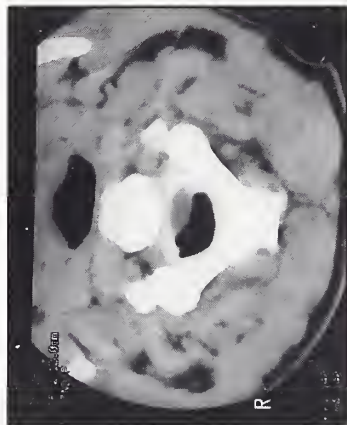
# Radiological Case of the Month



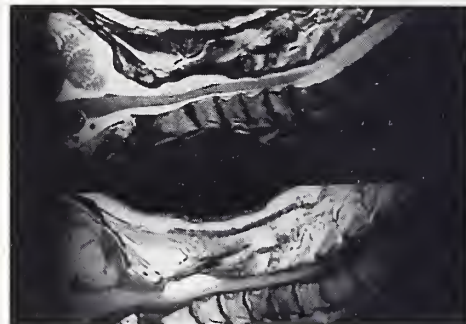
Steven R. Nokes, M.D.  
J. Zachary Mason, M.D.

## History:

This thirty-two-year-old male presented with right sided weakness. An MR scan was obtained followed by CT-myelography.



**Figure 1.** Sagittal T<sub>1</sub> (left) and T<sub>2</sub> (right) weighted images of the cervical spine.



**Figure 2.** Axial CT-myelogram of the cervical spine.

## Diagnosis: Intradural Lipoma

### Findings:

The MR images reveal a smoothly margined intradural, extramedullary mass posterior to the cervical cord. The mass has high signal (bright) on T<sub>1</sub> weighting and intermediate (gray) signal on T<sub>2</sub> weighting. The signal characteristics are similar to subcutaneous fat. The CT myelogram confirms the lesion posterior to the cord. The density is less than water consistent with fat.

### Discussion:

Intradural Lipomas are found adjacent to the cord within an intact dural sac. These lesions constitute less than 1% of spinal tumors. They probably result from premature separation of cutaneous ectoderm from neuroectoderm during neurulation. They are somewhat more common in males and exhibit a triphasic age distribution: 0-5 years (25%), 10-30 years (55%) and the 5th decade (16%).

Radicular pain is uncommon. Typically patients present with a slowly ascending para or monoparesis. Intradural Lipomas occur most commonly outside the lumbar spine (cervical 12%, cervicothoracic 24%, thoracic 30%). Most are dorsal, but 25% are anterior or anterolateral. Associated syrinx is rare (< 2%). The vertebral bodies are almost always normal.

MR is the imaging modality of choice for almost all spinal pathology. Fat has a characteristic MR and CT appearance. Both allow evaluation of the extent of the lipoma and the relationship to the neural placode, spinal cord and nerve roots.

### References:

1. Barkovich AJ. Congenital anomalies of the spine. In: Pediatric Neuroimaging. Raven Press. 1990; 239-240.

*Editor: Steven R. Nokes, M.D. is affiliated with Radiology Consultants in Little Rock.*

*Contributor: J. Zachary Mason, M.D. is affiliated with the Neurological Surgery Associates in Little Rock.*



# Medicine in the News

## AMENDMENTS TO THE REGULATIONS PERTAINING TO CONTROLLED SUBSTANCES

The Arkansas Department of Health issued final rules and regulations permitting the use of facsimile to transmit controlled substance prescriptions, from Practitioners licensed to prescribe, to the dispensing pharmacy. The rule is intended to facilitate the delivery of controlled drug medications in situations where a patient's needs may change rapidly.

For pharmacies providing Schedule II drugs for home infusion/intravenous pain therapy or for patients in long term care facilities, and for any prescriptions for a drug in Schedules III, IV and V, the facsimile is deemed an original document that must be retained by the pharmacy in the same manner as a written prescription.

For other situations involving Schedule II drugs, a facsimile may be used to transmit the order to the pharmacy, but an original written and signed prescription must be presented at the time the drugs are actually delivered by the pharmacy.

When facsimile is used to prescribe drugs, the same information must be provided as on a normal written prescription, including the signature of the prescribing practitioner.

## HEALTH CARE ACCESS FOUNDATION

As of March 1, 1995, the Arkansas Health Care Access Foundation has provided free medical service to 9,067 medically indigent persons, received 16,882 applications and enrolled 34,109 persons. This program has 1,685 volunteer health care providers including medical doctors, dentists, hospitals, home health agencies and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.

## DEATH WITH DIGNITY ACT

AMA trustee, Thomas Reardon, MD, testified on February 27, 1995, before a state senate committee in New Mexico against the "Death With Dignity Act", a measure that would legalize physician-assisted suicide. Dr. Reardon said: "(It is) wrong and unethical to ask a physician to participate in killing a patient." The measure was subsequently defeated by a vote of 6 to 1.

My name is Thomas R. Reardon, MD. I am a general practitioner in Portland, Oregon and Secretary-Treasurer of the American Medical Association (AMA). I also chair the AMA's Task Force on Physician-Assisted Suicide. On behalf of the AMA, I appreciate the opportunity to testify on the issue of physician-assisted suicide and the bill that is before you

now, Senate Bill 446, the "Death with Dignity Act."

The fear of living with chronic, unrelieved pain has fueled widespread debate over whether physician-assisted suicide should be legalized. The public is well aware that a terminal illness can cause severe pain and debilitation and can rob a person of his or her dignity. In fact, patients suffering from a terminal illness may experience a loss of self-control and independence, a sense of futility, along with a fear of dying. As physicians, we understand the public's fears and concerns. However, we are dedicated to providing our patients with compassionate care, comfort and support. Our commitment is to helping the terminally ill patient in his or her remaining days of life, not to causing the patient's death. Therefore, there is no place in our profession, nor in our society, for physician-assisted suicide laws.

## Physicians Promise To Do No Harm

For nearly 2,500 years, physicians have pledged to "give no deadly medicine to anyone, even if asked." The Council on Ethical and Judicial Affairs of the AMA studied the issue of physician-assisted suicide and

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found unequivocally that it is unethical for physicians to assist a patient in suicide. The issue goes beyond the rights and wrongs of suicide. At its heart

*Physicians promise to devote themselves to healing and to life. The very foundation of the patient-physician relationship is grounded in the patient's trust that the physician is working wholeheartedly for the patient's health and welfare.*

is the placement of the physician in the position of actively ending a life.

Physicians promise to devote themselves to healing and to life. The very foundation of the patient-physician relationship is grounded in the patient's trust that the physician is working wholeheartedly for the patient's health and welfare. Laws that sanction physician-assisted suicide undermine that trust and the essence of the patient-physician relationship.

When a patient requests that his or her physician withdraw or withhold treatment, however, it is appropriate and ethical for the physician to act in accordance with the wishes of the patient. It is also appropriate for a physician to administer pain medications to relieve suffering, even if that relief may hasten a patient's death. These efforts are altogether different from actively assisting a patient to commit suicide. The intent behind them is to provide compassionate care, not to end life.

### **Physicians Must Do a More Effective Job of Managing Pain**

What patients need when they are terminally ill is relief from pain and suffering, respect for their humanity and the comforting presence of those they love. Physicians must respond aggressively to the needs of patients at the end of life with adequate pain control, emotional support, comfort care, respect for patient autonomy and good communications. Patients also need the psychological and spiritual support of family and friends.

One of the greatest concerns reported by patients facing a terminal illness or chronic debilitation is the fear that they will be unable to receive adequate relief for their pain. For most patients, however, pain can be adequately controlled. In 1995, good pain management with oral medications can relieve up to 90 percent of all pain. Almost all remaining pain can be relieved by nerve blocks and radiotherapy. Further efforts to educate physicians about advanced pain management techniques, both at the undergraduate and graduate levels, are necessary to overcome any shortcomings in the area of pain management and effective

end-of-life care.

The hospice movement has made great strides in providing calm, compassionate care to patients at the end of life. In hospice care, the patient's symptoms, including pain, are aggressively treated to make the patient comfortable and efforts to extend the patient's life are not pursued. Hospice patients are often cared for at home, but if because of the patient's condition

home care is not a possibility and hospitalization is necessary, intrusive medical technology is kept to a minimum. Hospice programs truly offer patients a dignified death.

### **Advance Directives Empower Patients to Control their End-of-Life Care**

Patients do not need physician-assisted suicide laws in order to control the medical care that they receive at the end of life. Patients already are empowered to determine the nature of their treatment. A physician must respect a patient's decision to forgo treatment, as long as that patient possesses decision-making capacity. Furthermore, there exists an arsenal of tools that serve to ensure that a dying patient's wishes for tranquillity and freedom from pain are respected. These tools include living wills, powers of attorney for health care and advance directives that spell out how and what a patient wants his or her physicians, friends and family to do in the event that the patient cannot direct his or her own care.

These types of instruments have legal force in New Mexico. Patients in this state are allowed to refuse medical treatment. People in this state are encouraged to express their preferences by means of a living will or health-care proxy. These rights and benefits exist today, and they serve to give patients autonomy and control over their end-of-life medical treatment.

### **Senate Bill 446 is Inherently Dangerous**

Senate Bill 446, entitled the "Death with Dignity Act," is replete with inherent risks and would set a dangerous precedent if enacted. The bill defines terminal illness more broadly than any other measure to date in this country. While other physician-assisted suicide bills require that there be an expectation of death within six months, Senate Bill 446 defines terminal illness to include a condition that is incurable or irreversible "that imposes a chronic or intractable pain upon the patient such that in the perception of the patient, the patient is unable to enjoy or experience activity that makes life worthwhile."

This definition is not consistent with the common



understanding of "terminal illness" leading to the possibility of misunderstanding. Under the definition, a patient could be considered to have a terminal disease, and be eligible to end his or her life, if the patient has an incurable or irreversible disease that prevents the patient from engaging in activities that, in the patient's eyes, make life worthwhile. There is no requirement that death be at all imminent, or even in the foreseeable future. The language could encompass people who have arthritis, are HIV positive or suffer from severe depression or other psychiatric conditions.

Senate Bill 446 also provides that the waiting period, the time after an initial request is made and a prescription written, may be shortened or eliminated. The bill would authorize physicians to dispense the medication, in addition to writing the lethal prescription. Moreover, the bill contains unprecedented language that would, in certain circumstances, permit a third party to administer the lethal drug. Thus, Senate Bill 446 arguably in certain cases WOULD LEGALIZE LETHAL INJECTION.

Euthanasia is sanctioned in only one place in this world, the Netherlands. In the Netherlands, physician-assisted suicide has been tolerated for two decades, and government studies demonstrate the slippery slope of this type of legislation. Over half (54 percent) of Dutch physicians report that they have now assisted at suicides or performed euthanasia. Detailed interviews with those physicians revealed that while 2,300 patients asked for and received help in dying during a six-month period, physicians admitted ending the lives of 1,000 other patients who made no clear request for such assistance. And experts believe that physicians have performed many additional cases of euthanasia on patients who did not want to be euthanized.

Defeat of Senate Bill 446 undoubtedly will be regarded as a hardship by certain terminally ill patients who want the option of physician-assisted suicide to be available, but there is an overriding public interest in protecting vulnerable citizens from the irreparable finality of death. It is one thing to debate on a philosophical level the concept of legalizing physician-assisted suicide. It is another thing altogether to put it into practice and assure that all necessary precautions are taken.

Moreover, there simply is no way to write into a physician-assisted suicide bill all of the necessary safeguards. The bill does not address the very real possibility that a patient may make a request for physician-assisted suicide for rea-

sons other than a desire to end life. The patient may suffer from clinical depression, hopelessness, loss of self-esteem or fear of abandonment. The patient may have inadequate social support or may be concerned about burdening family or others. How can legislation ensure that economic concerns will not turn a right to die into an obligation to die? What language can a law contain to guarantee that the decision to commit suicide is truly voluntary?

If the bill passes, the implementation phase undoubtedly will be fraught with complications. For instance, drug overdoses can be ineffective at ending lives, often just causing vomiting and sleep, or worse, putting the patient in a permanent vegetative state. After voters in Oregon narrowly approved a physician-assisted suicide ballot initiative, physicians in the state were alarmed to discover that one-quarter of all deaths-by-prescription do not work. Pieter Admiraal, MD, the dean of Holland's euthanasia movement and one who has participated in over 100 such deaths, told the *Portland Oregonian* last December that approximately one-quarter of patients attempting to commit suicide by means of drug overdose linger for up to four days, causing great anxiety to themselves and their families. Dr. Admiraal stated that direct euthanasia, by way of a lethal injection, is necessary to ensure death in these cases.

In a letter to the *New York Times* that appeared one month after the Oregon measure passed, Derek Humphry, author of the best-selling "instructional manual" on suicide, "Final Exit," expressed the same sentiment. Without allowing lethal injection, he wrote, Oregon's law "could be disastrous." Mr. Humphry campaigned for the Oregon law, but it was not until after voters passed the measure that he wrote that the new Oregon way to die will only work if in every instance a doctor is standing by to administer the coup de grace if necessary.

There can be no doubt that Senate Bill 446 was drafted in order to appear as a compassionate alternative to euthanasia. However, the bill undoubtedly will start New Mexico down the same slippery slope on which the Netherlands is sliding. Senate Bill 446 purports to maximize patient autonomy and minimize

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physician involvement. Yet those that drafted the bill and those that are attempting to secure its enactment know, from the experience in the Netherlands, that a

prescription for medication to end life does not guarantee a quick, dignified death. As both Dr. Pieter and Mr. Humphry recognized, direct euthanasia, by a lethal injection, will often times be necessary in order to cause death. Their statements illustrate the dangers of enacting a physician-assisted suicide bill like Senate Bill 446, and raise the question of whether this bill will open the door for laws that today are unthinkable.

If physician-assisted suicide is made legal here in New Mexico, will we move BEYOND assisting those who ask for help, to "committing suicide" on vulnerable populations, such as depressed senior citizens and comatose accident victims? Will we soon be discussing the need to REQUIRE physicians to engage in these practices if and when patients request it? Will physician-assisted suicide become acceptable just because a patient views the world with abject hopelessness? Will we become so numb to the practice that we will not find it objectionable to perform euthanasia on patients who do not want to be euthanized?

## Conclusion

Legally sanctioning physician-assisted suicide is not the way in which to comfort the terminally ill, nor is it the route that should be taken in order to alleviate the fears people have about suffering from a terminal illness. Their anxiety and concerns should be answered with more effective pain management and end of life care, and with the promotion of living wills and durable powers of attorney for health care. The response is a better informed medical profession and public, working together to preserve fundamental human values at the end of life.

Senate Bill 446 is not compassionate, it is unacceptable. And most importantly, it will not afford the terminally ill a dignified death.

I hope that you will honor the healing role of physicians and vote against Senate Bill 446. The physician's role is to affirm life, not to precipitate its demise. The public, your constituents, deserve good medicine and better pain control. It should never ask for, nor permit, physicians to violate their long-standing ethical oath to "do no harm" and enter into the practice of assisting death. ■

## AMS Newsmakers

### Physician's Recognition Award

The Physician's Recognition Award is awarded each month to physicians who have completed acceptable programs of continuing education. The AMS members who were recipients for the months of January and February are as follows:

Dabney H. Brannon	Fayetteville
Philip R. Hardin	Mountain Home
Gregory F. Kresse	Eureka Springs
Burton A. Moore	Little Rock
Wallace L. Tracy	De Witt
Kenneth L. Ubben	Fayetteville
R. Cole Goodman	Fort Smith
Alice R. Laule	Harrison
Henry A. Lile	Little Rock
Louis G. Singleton	Little Rock
Gary E. Talbert	Little Rock

Working with the National Domestic Violence Project, **Dr. Jim English** of Little Rock is offering free reconstructive surgery to women whose faces have been disfigured through an abusive relationship. He will perform the surgery at Baptist Medical Center, which is donating its operating rooms and facilities.

**Dr. Margaret Beasley** has been named chief of staff at Conway Regional Medical Center. She is the first female to serve in this capacity.

**Dr. Benson A. Grigsby** of Crossett has been recertified a Diplomate of the American Board of Family Practice.

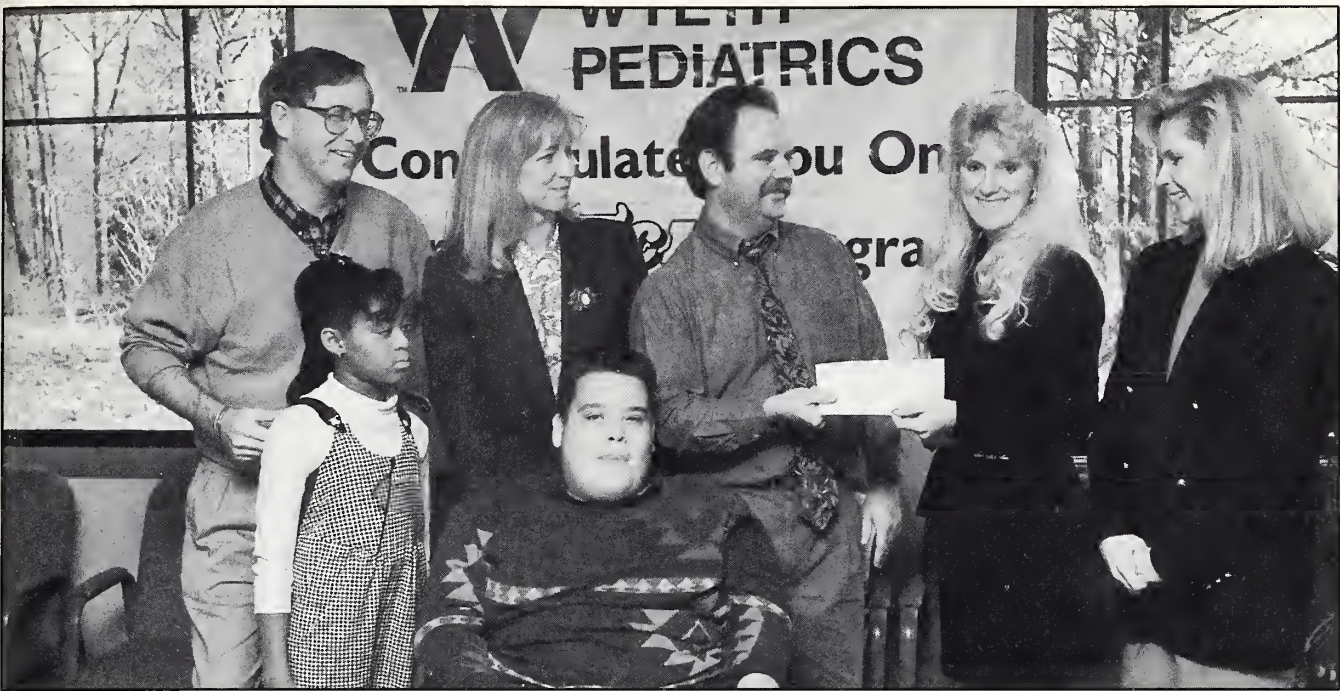
**Dr. Charles Klepper** of Harrison recently completed the Medical Knowledge Self-Assessment Program IX given by the American College of Physicians.

**Dr. Charles H. Rodgers** of Little Rock has been appointed to serve as chairman of the American Academy of Family Physicians' Committee on Scientific Programs.

**Dr. Jim D. Russell** of Blytheville recently received the YMCA's 1994 R. L. Newton Award for his generous support of the YMCA and in the naming of the Y baseball field in honor of his late father.

**Dr. Larry Weathers** of Searcy recently performed Searcy's first double balloon-expandable Palmaz-Schatz stent procedure at Central Arkansas Hospital. He studied this procedure in San Antonio, Texas, with Julio Palmaz, M.D., who has been involved in the original development and research.





**Dr. Curtis Patton** (*third from left*), recently became the eighteenth recipient of the American Academy of Pediatrics' Community Access to Child Health planning grant, funded by Wyeth-Lederle Vaccines and Pediatrics. Dr. Patton's award is based on his efforts to deliver quality health care to children in the East Arkansas Delta who suffer from behavioral, emotional and psychological problems. These children can now be treated closer to home at the Family Counseling and Diagnostic Clinic in Forrest City. Dr. Patton and his wife, Susan Patton, F.N.P., planned the clinic and made it a reality with support from the grant. Pictured with Dr. Patton and two young patients are (*from left*) Tom Heisler, Ph.D., clinic psychologist; Dr. Patton's wife; and Antrice Kay and Denise Oldham, both of Wyeth-Lederle Vaccines and Pediatrics.

# In Memoriam

## Tom L. Dunn, M.D.

Dr. Tom L. Dunn, of Hampton, died Monday, February 27, 1995. He was 74.

He was preceded in death by his wife, Opal Elizabeth Rolfe Dunn. He is survived by two sons and daughters-in-law, Robert L. and Donna Dunn of El Dorado, Bill and Myra Dunn of Hampton; two daughters and sons-in-law, Linda and Ricky Stringfellow of Hampton, Diane and Dan Ritchie of Hampton; one sister, Beth Arnold of Hampton; two aunts, Lula Worthington of Little Rock, Lillian Biggers of Hampton; 13 grandchildren; six nieces and eight nephews.

## Robert Henry, Jr., M.D.

Dr. Robert Henry, Jr., of Little Rock, died Tuesday, February 14, 1995. He was 76 and a member of AMS Fifty Year Club.

He is survived by his wife, Mary Helen Trieschmann Henry; three sons, Robert L. Henry, Dr. Richard Y. Henry and Dr. William T. Henry all of Little Rock; one brother, Dr. Jack Henry, of Corpus Christi, Texas; eight grandchildren; and one great-grandchild.

## Robert A. Hoagland, M.D.

Dr. Robert A. Hoagland, of Dumas, died Tuesday, February 28, 1995. He was 68.

He is survived by his wife, Judy Hoagland and four children, Robert A. Hoagland, Jr., Scott Rosegrant, Heidi Hoffman and Judith Ashley Rosegrant; two sisters, Peggy McDaniels and Betty Dunlap; also two grandchildren, Nicholas and Megan Allison Bode.

## Oliver C. Raney, M.D.

Dr. Oliver C. Raney, of Harrison, died Saturday, February 18, 1995. A former forty-year member of the Arkansas Medical Society, he was 73.

He was preceded in death by four brothers, four sisters and a son, Richard Harvey Raney. He is survived by his wife, Betty Jean Heath Raney; two sons, Charles R. Raney of Harrison and Russell Alan Raney of Salem, Oregon; two daughters, Leah Beth Raney Kennett of Columbia, Missouri, and Lisa Ann Raney Harper of Grangeville, Idaho; three sisters, Beatrice Van Pelt of Harbor, Oregon, Doris McFerrin of Russellville and Irma Gregory of Jasper; a brother, Joseph Ray Raney of Missouri; and five grandchildren.

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# Things To Come

**April 28 - 30**

**1995 Pediatric Update for Primary Care Physicians.** Westin Canal Place Hotel, New Orleans, Louisiana. Sponsored by the Departments of Pediatrics from Tulane University School of Medicine & Ochsner Medical Institutions, and Tulane Hospital for Children in cooperation with TUMC's Office of Continuing Education. For more information, call (504) 588-5466 or 1-800-588-5300.

**April 28 - 30**

**Current Topics in Pathology: Liver, GI, Kidney Biopsy Pathology.** Westin Canal Place Hotel, New Orleans, Louisiana. Sponsored by Tulane University Medical Center, Department of Pathology and the TUMC, Office of Continuing Education. For more information, call (504) 588-5466 or 1-800-588-5300.

**April 28 - May 5**

**54th Annual American Occupational Health Conference.** Sands Expo and Convention Center, Las Vegas, Nevada. Co-sponsored by the American College of Occupational and Environmental Medicine and the American Association of Occupational Health Nurses. For more information, call (708) 228-6850.

**May 1-3**

**5th Annual New Orleans HIV/AIDS Update for the Primary Care Provider.** Sheraton Hotel, New Orleans, Louisiana. Sponsored by the Delta Region AIDS Education and Training Center, LSU Medical Center Schools of Medicine and Nursing, Tulane University Medical Center and Alton Ochsner Medical Foundation. Endorsed by New Orleans Nurses for AIDS Care. For more information, call (504) 568-3855.

**May 8-9**

**10th National Conference on Prescription Medicine Information and Education.** The Sheraton Washington Hotel in Washington, DC. Sponsored by the National Council on Patient Information and Education. For more information, call (202) 347-6711.

**May 12-13**

**2nd Annual Current Topics in Cardiothoracic Anesthesia.** The Marriott Pavilion Hotel, St. Louis, Missouri. Presented by Washington University School of Medicine, Division of Cardiothoracic Anesthesia and the Office of Continuing Medical Education. For more information, call 1-800-325-9862.

**May 15-26**

**6th Annual Tropical Health Update.** Tulane University Medical Center School of Public Health & Tropical Medicine. Sponsored by TUMC and the Office of Continuing Education. Call (504) 588-5466 or 1-800-588-5300.

**May 17-20**

**National Rural Health Association's Eighteenth Annual National Conference.** Hyatt Regency Hotel in Atlanta, Georgia. For more information, write to: National Rural Health Association, National Service Center, One West Armour Boulevard, Suite 301, Kansas City, Missouri, 64111.

**May 24-26**

**14th Annual Conference on Child Abuse and Neglect.** Red Lion Hotel, Sacramento, California. Sponsored by the Office of Continuing Medical Education and The University of California Davis School of Medicine and Medical Center. Call (916) 734-5390.

**June 2**

**Annual UC Davis Ophthalmology Symposium.** Vizcaya Pavilion, Sacramento, California. Sponsored by the Office of Continuing Medical Education and The University of California Davis School of Medicine and Medical Center. Call (916) 734-5390.

## **ORTHOPAEDIC RESEARCH AND EDUCATION FOUNDATION**

**Banks Blackwell, M.D., Medical Director**

Following is a 1994 roster of Order of Merit members from the state of Arkansas. Each donor gave at least \$1,000 last year to underwrite educational programs and research projects selected by the peer review committees of OREF. Through their leadership, these Order of Merit donors pave the way for giving by their colleagues, the lay public and orthopaedic industry. By "giving back" to the specialty, they are shaping the future of orthopaedics.

**CONWAY** Dr. & Mrs. Thomas S. Roberts (3)

**FAYETTEVILLE** James A. Arnold, M.D. (9)

**FORT SMITH** Dr. & Mrs. Peter J. Irwin (10)  
Paul L. Laby, M.D. (3)

**HARRISON** Dr. & Mrs. Charles A. Ledbetter (4)

**LITTLE ROCK** Mr. & Mrs. Michael M. Bailey (6)  
\*Dr. & Mrs. C. Lowry Barnes (3)

*(A TRIBUTE TO WALTER G. SELAKOVICH, M.D.)*

Philip H. Johnson, M.D. (10)

Carl L. Nelson, M.D. (5)

Mr. Luis L. Wilder (2)

**MOUNTAIN HOME** Thomas E. Knox, M.D. (1)

**PINE BLUFF** \*Banks Blackwell, M.D. (7)

*(A MEMORIAL TRIBUTE TO MR. HARRY T. TREACE)*

John O. Lytle, M.D. (4)

*(A MEMORIAL TRIBUTE TO MR. VINCENT THOMAS and DR. CHARLES N. MCKENZIE)*

James Alan Pollard, M.D. (1)

*\*Denotes member of Shands Circle. Each donor contributed at least \$20,000.*

## 12th Annual W.W. Stead Chest Symposium

April 22-23, 1995, 7:30 a.m. Registration, Hilton Inn, Hot Springs. Sponsored by UAMS College of Medicine and presented by Marcia Erbland, M.D. Category I credit: TBA. Fee: TBA.

## Diabetes Update

April 29, 1995, 8:00 a.m. Registration, Holiday Inn West, Little Rock. Sponsored by UAMS College of Medicine. Category I credit: TBA. Fee: TBA.

## 17th Annual Family Practice Intensive Review

June 2-4, 1995, UAMS, Little Rock. Sponsored by UAMS College of Medicine. Presented by Dr. Steven Strode. Category I credit: TBA. Fee: \$300 for physicians and other health care professionals, and \$250 for residents through May 1. \$50 increase in fee thereafter.

## Recurring Education Programs

The following organizations are accredited by the Arkansas Medical Society to sponsor continuing medical education for physicians. The organizations named designate these continuing medical education activities for the credit hours specified in Category I of the Physician's Recognition Award of the American Medical Association.

### FAYETTEVILLE-VA MEDICAL CENTER

General Medical Topics, Thursdays, 12:00 noon, Auditorium, Bldg. 3  
Medical Grand Rounds, Thursdays, 12:00 noon, Conference Room, Bldg. 4

### HARRISON-NORTH ARKANSAS MEDICAL CENTER

Cancer Conference, 4th Thursday, 12:00 noon, Conference Room

### LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL

Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium  
Genetics Conference, Wednesdays, 12:00 noon, Sturgis Bldg., room 457  
Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom  
Pediatric Grand Rounds, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium  
Pediatric Neuroscience Conference, 1st Thursday, 8:00 a.m., 2nd Floor Classroom  
Pediatric Pharmacology Conference, 5th Wednesday, 12:00 noon, 2nd Classroom  
Pediatric Research Conference, 1st Thursday, 12:00 noon, 2nd Floor Classroom

### LITTLE ROCK-ST. VINCENT INFIRMARY MEDICAL CENTER

Cancer Conferences, Thursdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Chest Conference, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
General Surgery Grand Rounds, 1st Thursday, 7:00 a.m. Southwestern Bell/ARKLA Room. Light breakfast provided.  
Interdisciplinary AIDS Conference, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Joint Tumor Conference, 1st Wednesday, 12:00 noon, CARTI Auditorium. Lunch provided.  
Journal Club, Tuesdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Urology Grand Rounds, Tuesday, May 2, 5:30 p.m., Southwestern Bell/ARKLA room. Refreshments provided.  
Mental Health Conference, 3rd Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.  
Urology Grand Rounds, 1st Tuesday, 5:30 p.m., Southwestern Bell/Arkla room. Refreshments provided

### LITTLE ROCK-BAPTIST MEDICAL CENTER

Anesthesiology Conference, 3rd Thursday, 7:00 a.m., Conference Room 1  
Breast Conference, 3rd Thursday, 7:00 a.m., Conference Room 1  
GI Conference, 4th Friday, 11:30 a.m., Conference Room 1  
Grand Rounds Conference, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.  
Pathology Conference, 1st Tuesday, 3:00 p.m., Pathology Library  
Pediatric Grand Rounds, Tuesdays, 12:00 noon, Especially for Women Resource Room, 2nd floor/BMC. Category 1 credit available. Lunch provided.  
Pulmonary Conference, Tuesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.  
Sleep Case Conference, Fridays, 12:00 noon. Call BMC ext. 1902 for location. Lunch provided.



**MOUNTAIN HOME-BAXTER COUNTY REGIONAL HOSPITAL**

*Lecture Series*, 3rd Tuesday, 6:30 p.m., Education Building  
*Tumor Conference*, Tuesdays, 12:00 noon, Carti Boardroom

**NORTH LITTLE ROCK-BAPTIST MEMORIAL HOSPITAL**

*Chest & Problems Case Conference*, 3rd Wednesday, 12:00 noon, Assembly room. Lunch provided.  
*Grand Rounds*, 1st Monday (3rd, chest), 12:00 noon, Assembly room.

*As an organization accredited for continuing medical education by the Accreditation Council for Continuing Medical Education, the University of Arkansas for Medical Sciences certifies the following continuing medical education activities meet the criteria for Category I of the Physician's Recognition Award of the American Medical Association.*

**LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES**

*ACRC Oncology Forum*, Thursdays, 4:00 p.m., UAMS ACRC 2nd Floor Board room, 1.5 credits  
*Anesthesia Lecture Series*, Wednesdays, 4:00 p.m., UAMS Education Bldg., room G/110 A&B  
*Anesthesia Morbidity & Mortality Conference*, Tuesdays, 6:45 a.m.; 2nd & 4th Thursdays, 4:00 p.m., UAMS Education Bldg., room G/110 A&B  
*Arkansas Blood & Cancer Society Conference*, 6th Thursday, 7:30 p.m. Terrace Restaurant, Little Rock  
*Cardiology Clinical Conference*, Mondays, 4:00 p.m., UAMS, room 3S06  
*Cardiology Graphics Conference*, Wednesdays, 12:00 noon, UAMS, room 3S06  
*CARTI North Tumor Board Cancer Conference*, 2nd Wednesday, 12:00 noon, CARTI North, Searcy  
*Cardiothoracic Surgery Conference*, date, time, & location varies  
*Cardiothoracic Surgery Monthly Journals Club*, 4th Saturday, 9:30 a.m., UAMS Surgery Dept. Library, room 2S/28D  
*Cardiothoracic Surgery Morbidity & Mortality Conference*, 2nd Saturday, 9:30 a.m., UAMS Surgery Dept. Library, room 2S/28D  
*Child Psychiatry Update/Case Conference*, 3 Fridays per month, 1:00 p.m., ACH Child Study Center conference room  
*CME Outreach Program*, dates, times & locations vary  
*Emergency Medicine Didactic Conference 1*, Thursdays, 12:00 noon. UAMS Education Bldg., room G/110A&B  
*Emergency Medicine Didactic Conference 2*, Thursdays, 1:00 p.m., UAMS Education Bldg., room G/110A&B  
*Emergency Medicine Grand Rounds 1*, Tuesdays, 3:00 p.m., UAMS Education Bldg., room B/106A&B  
*Emergency Medicine Grand Rounds 2*, Tuesdays, 4:00 p.m., UAMS Education Bldg., room B/106A&B  
*Endocrinology Case Conference*, Fridays, 7:30 a.m., ACRC 3rd floor conference room  
*Family Practice Grand Rounds*, Tuesdays, 12:15 p.m., Family Practice Center, 6th and Elm  
*Gastroenterology Grand Rounds*, Thursdays, 4:00 p.m., Gastroenterology conference room, 3D29  
*GI/Radiology Conference*, Tuesdays, 8:00 a.m., UAMS Radiology conference room, M1/293  
*Hematology/Oncology Fellow's Forum*, Fridays, 8:15 a.m., ACRC Betsy Blass conference room  
*Interhospital Urology Grand Rounds*, 1st Tuesday, 5:30 p.m., St. Vincent Arkla/Bell room  
*LR Cancer Conference*, Wednesdays, 12:00 noon, UAMS ACRC conference room three times a month, CARTI Auditorium once a month  
*LR Vascular Conference*, time & date varies monthly, rotates between UAMS, SVI & BMC  
*Medicine Grand Rounds*, Thursdays, 12:00 noon, UAMS Education Bldg., room G/131A&B  
*Med/Path Conference*, 3rd or 4th Tuesday, 3:00 p.m., UAMS Shorey Bldg., room S/306  
*Medicine Journal Club*, alternate Thursdays, 7:30 a.m., ACC Medicine Clinic conference room  
*Medicine Research Conference*, Wednesdays (except 3rd), 4:30 p.m. UAMS Education Bldg. room B/135  
*Neurology-Neuropathology Conference*, Wednesday's, 4:00 p.m., Room 2E-142 at VAMC  
*Neurology-Neuradiology Conference*, Wednesday's, 5:15 p.m., Radiology Conference Room at UAMS  
*Neuroscience Clinical Grand Rounds*, Monday's, 3:00 p.m., Betsy Blass Conference Room, Arkansas Cancer Research Center  
*Neuroscience Conference (Basic)*, Mondays, 8:00 a.m., UAMS 7D33  
*Neuroscience Conference (Basic & Clinical)*, Wednesdays, 4:00 p.m., UAMS 7C  
*Neurosurgery Journal Club*, 2nd & 4th Thursdays, 8:00 p.m., 2 credit hours  
*Neurosurgical Pathology Conference*, Thursdays, 4:00 p.m., VAMC-LR Neuropathology conference room, 2E141  
*OB/GYN Fetal Boards*, 2nd Fridays, 8:00 a.m., ACH Sturgis Bldg.  
*OB/GYN Grand Rounds*, Wednesdays, 7:45 a.m., UAMS Education Bldg., room G/131B  
*Ophthalmology Problem Case Conference*, Thursdays, 4:00 p.m., UAMS Jones Eye Institute, 2 credit hours  
*Ophthalmology Residency Morning Lectures*, Mondays, Wednesdays, Fridays, 7:30 a.m., UAMS Jones Eye Institute  
*Orthopaedic Basic Science Conference*, Tuesdays, 8:00 a.m., UAMS Education Bldg., room B/135  
*Orthopaedic Bibliography Conference*, Tuesdays, 8:30 a.m., UAMS Education Bldg., room B/135, 1.5 credit hours  
*Orthopaedic Fracture Conference*, Tuesdays, 7:30 a.m., UAMS Education Bldg., room B/135  
*Orthopaedic Grand Rounds*, Tuesdays, 10:00 a.m., UAMS Education Bldg., room B/135  
*Pathology Autopsy Conference*, Wednesdays, 12:00 noon, VAMC-LR Morgue  
*Psychiatry Grand Rounds*, Fridays, 11:00 a.m., UAMS Child Study Center Auditorium  
*Surgery Basic Sciences Conference*, 1st Saturday, 7:30 a.m., ACRC 2nd floor conference room  
*Surgery Grand Rounds*, Saturdays, 8:30 a.m., ACRC 2nd floor conference room

*Surgery Morbidity & Mortality Conference*, Saturdays, 9:30 a.m., ACRC 2nd floor conference room  
*Surgery Resident Case Conference*, Saturdays (except 1st), 7:30 a.m., ACRC 2nd floor conference room  
*Trauma Morbidity & Mortality Conference*, date & time varies monthly, ACRC 2nd floor conference room  
*Urology Adult Subject Oriented Conference*, once monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Basic Sciences Conference*, 2nd Tuesdays, 5:00 p.m., VAMC-LR, 4D resident office  
*Urology Clinical Didactic Conference*, 3rd Tuesday, 5:00 p.m., VAMC-LR, 4D  
*Urology Formal Teaching (Grand) Rounds*, once or twice monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Journal Club*, once a month, 5:00 p.m., VAMC-LR, 4D  
*Urology Morbidity & Mortality Conference*, once monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Pathology Conference*, 4th Thursday, 5:00 p.m., VAMC-LR, 4D  
*Urology Pediatric Conference*, once monthly, 5:00 p.m., ACH Sturgis Bldg., Clinic 2  
*Urology Pre-op/Didactic Conference*, Mondays, 5:00 p.m., VAMC-LR, 4D  
*Urology Radiology Conference*, 1st Thursday, 5:00 p.m., UAMS, Radiology Department  
*Urology Teaching Conference*, Wednesdays, 5:00 p.m., VAMC-LR, 4D  
*Urology VA Teaching Rounds*, every Friday, 7:30 a.m., VAMC-LR, 4D  
*Uro-radiology Conference (Urologic Imaging)*, 1st Tuesdays, 5:00 p.m., UAMS Radiology conference room  
*VA Chest Conference (combined Surgical/Medical Chest Conference)*, Mondays, 12:15 p.m., VAMC-LR, room 2D109  
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*VA GREEC/Geriatric Research Conference*, Tuesdays, 4:00 p.m., VAMC-LR, room 2D109  
*VA Hematology/Oncology Conference*, Thursdays, 8:15 a.m., VAMC-LR Pathology conference room 2E142  
*VA Lung Cancer Conference*, Thursdays, 3:00 p.m., VAMC-LR, room 2E142  
*VA Medical Service Teaching Conference*, Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68 room 130  
*VA Medicine-Pathology Conference*, Tuesday, 2:00 p.m., VAMC-LR, room 2D109  
*VA Medicine Resident's Clinical Case Conference*, Fridays, 12:00 noon, VAMC-LR, room 2D08  
*VA Physical Medicine & Rehab Grand Rounds*, 4th Friday, 11:30 a.m., VAMC-NLR Bldg. 68, room 118 or Baptist Rehab Institute  
*VA Surgery Grand Rounds*, Thursdays, 12:45 p.m., VAMC-LR, room 2D109, 1.25 credit hours  
*VA Topics in Rehabilitation Medicine Conference*, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR Bldg. 68, room 118  
*VA Weekly Cancer Conference*, Monday, 3:00 p.m., VAMC-LR, room 2E-142  
*White County Memorial Hospital Medical Staff Program*, once monthly, dates & times vary, White County Memorial Hospital, Searcy

#### **EL DORADO-AHEC**

*Behavioral Sciences Conference*, 1st & 4th Friday, 12:30 p.m., AHEC - South Arkansas  
*Chest Conference*, 3rd Wednesday, 12:30 p.m., Warner Brown Hospital  
*Dermatology Conference*, 1st Tuesdays and 1st Thursdays, AHEC - South Arkansas  
*GYN Conference*, 2nd Friday, 12:30 p.m., AHEC-South Arkansas  
*Internal Medicine Conference*, 1st, 2nd & 4th Wednesday, 12:30 p.m., AHEC-South Arkansas  
*Noon Lecture Series*, 2nd & 4th Thursday, 12:00 noon, AHEC - South Arkansas. Lunch provided.  
*Pathology Conference*, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas  
*Pediatric Conference*, 3rd Friday, 12:30 p.m., AHEC - South Arkansas  
*Pediatric Case Presentation*, 3rd Tuesday, 3rd Friday, AHEC - South Arkansas  
*Arkansas Children's Hospital Pediatric Grand Rounds*, every Tuesday, 8:00 a.m., AHEC - South Arkansas (Interactive video)  
*Pathology Conference*, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas  
*Obstetrics-Gynecology Conference*, 4th Thursday, 12:30 p.m., AHEC - South Arkansas  
*Surgical Conference*, 1st, 2nd & 3rd Monday, 12:30 p.m., AHEC - South Arkansas  
*Tumor Clinic*, 4th Tuesday, 12:30 p.m., AHEC - South Arkansas

#### **FAYETTEVILLE-AHEC NORTHWEST**

*AHEC Teaching Conferences*, Tuesdays & Wednesdays, 12:00 noon, Washington Regional Medical Center  
*AHEC Teaching Conferences*, Fridays, 12:00 noon, Washington Regional Medical Center  
*AHEC Teaching Conferences*, Thursdays, 7:30 a.m., Washington Regional Medical Center  
*Medical/Surgical Conference Series*, 4th Tuesday, 12:30, Bates Medical Center, Bentonville  
*Primary Care Conferences*, 1st & 3rd Mondays, 12:00, every Tuesday 7:30 a.m., Washington Regional Medical Center

#### **FORT SMITH-AHEC**

*Gastroenterology Conference*, 3rd Tuesday every other month, 7:00 a.m., St. Edward Mercy Medical Center  
*Neuroradiology Conference*, 3rd Wednesday, 12:00 noon, St. Edward Mercy Medical Center  
*Neuroradiology Conference*, 1st Tuesday, 11:30 a.m., Sparks Regional Medical Center  
*Sparks Tumor Conference*, Thursdays, 12:00 noon, Sparks Regional Medical Center  
*Tumor Conference*, Mondays, 12:00 noon, St. Edward Mercy Medical Center



## **JONESBORO-AHEC NORTHEAST**

*AHEC Lecture Series*, 1st & 3rd Tuesday, 12:00 noon, Stroud Hall, St. Bernard's Regional Medical Center. Lunch provided.  
*Arkansas Methodist Hospital CME Conference*, 7:30 a.m., Hospital Cafeteria, Arkansas Methodist Hospital, Paragould  
*Chest Conference*, 2nd Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Citywide Cardiology Conference*, 3rd Thursday, 7:30 p.m., Jonesboro Holiday Inn  
*Clinical Faculty Conference*, 5th Tuesday, St. Bernard's Regional Medical Center, Dietary Conference Room, lunch provided  
*Craighead/Poinsett Medical Society*, 1st Tuesday, 7:00 p.m. Jonesboro Holiday Inn  
*Independence County Medical Society*, 2nd Tuesday, 7:30 p.m., Batesville Country Club, Batesville  
*Interesting Case Conference*, 4th Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Jackson County Medical Society*, 3rd Thursday, 7:00 p.m., Newport Country Club, Newport  
*Kennett CME Conference*, 3rd Monday, 12:00 noon, Twin Rivers Hospital Cafeteria, Kennett, MO  
*Methodist Hospital of Jonesboro CME Conference*, 2nd Tuesday, 7:00 p.m., Cafeteria, Methodist Hospital of Jonesboro  
*Neuroradiology Conference*, 3rd Friday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Orthopedic Case Conference*, June 23, 7:30 a.m., Board Room, Northeast Arkansas Rehabilitation Hospital.  
*Perinatal Conference*, 2nd Wednesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Pocahontas CME Conference*, 3rd Wednesday, 12:00 noon & 7:30 p.m., Randolph County Medical Center Boardroom  
*Tumor Conference*, Thursdays, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Walnut Ridge CME Conference*, 3rd & last Tuesday, 12:00 noon, Lawrence Memorial Hospital Cafeteria  
*White River CME Conference*, 3rd Thursday, 12:00 noon, White River Medical Center Hospital Boardroom

## **PINE BLUFF-AHEC**

*Behavioral Science Conference*, 1st & 3rd Thursday, 12:00 noon, Jefferson Regional Medical Center  
*Chest Conference*, 2nd & 4th Friday, 12:00 noon, Jefferson Regional Medical Center  
*Family Practice Conference*, 1st & 4th Tuesday, 12:00 noon, Jefferson Regional Medical Center  
*Geriatrics Conference*, 3rd Friday, 12:00 noon, Jefferson Regional Medical Center  
*Internal Medicine Conference*, 2nd & 4th Wednesday, 12:00 noon, Jefferson Regional Medical Center  
*Obstetrics/Gynecology Conference*, 2nd Tuesday, 12:00 noon, Jefferson Regional Medical Center  
*Orthopedic Case Conference*, 2nd & 4th Thursday, 12:00 noon, Jefferson Regional Medical Center.  
*Pediatric Conference*, 3rd Wednesday, 12:00 noon, Jefferson Regional Medical Center  
*Radiology Conference*, 3rd Tuesday, 12:00 noon, Jefferson Regional Medical Center  
*Southeast Arkansas Medical Lecture Series*, 4th Tuesday, 6:30 p.m., Pine Bluff County Club. Dinner meeting.  
*Surgery Conference*, 1st Friday, 12:00 noon, Jefferson Regional Medical Center  
*Tumor Conference*, 1st Wednesday, 12:00 noon, Jefferson Regional Medical Center

## **TEXARKANA-AHEC SOUTHWEST**

*Chest Conference*, every other 3rd Wednesday, 12:30 p.m., St. Michael Hospital  
*Neuro-Radiology Conference*, 2nd & 4th Tuesday, 12:00 noon, Wadley Regional Medical Center  
*Residency Noon Conference*, Mondays through Thursdays, 12:00 p.m., AHEC-Southwest Family Practice Clinic  
*Tumor Board*, Fridays, except 5th Friday, 12:00 noon, Wadley Regional Medical Center & St. Michael Hospital  
*Tumor Conference*, every 5th Friday, 12:00 noon alternates between Wadley Regional Medical Center & St. Michael Hospital



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# Important Money Management Principles

Robert Cohen\*

*In designing a portfolio, investors need to specify and prioritize their goals, and develop investment objectives which will correspond to those goals. The investor needs to have a good, solid understanding of money management principles and characteristics of alternative investment vehicles.*

*In constructing a portfolio, every investor has a choice of placing assets between two investment categories: those investments which are interest producing (debt instruments) and equity oriented instruments. Examples of interest producing assets are municipal bonds, international bonds, corporate bonds and government obligations. Equities refer to common stocks. These two investment categories have different investment characteristics.*

The percentage of debt instruments and equities in a portfolio will depend upon many factors which are unique to each individual, such as age, family responsibilities and obligations, income, consistency of income, marginal tax bracket, investment time horizon, investment experience, risk tolerance level, liquidity needs and net worth.

The purpose of this article is to address some of the differences between debt and equity investments, and how an investor's time horizon influences the decision to allocate investor's financial resources between debt and equity investments.

One of the advantages of most debt instruments is that the cash flows (interest and principal repayment) are specified in advance. There are many different types of debt in-

struments, which offer the investor an assortment to choose from. To determine which debt instruments are most appropriate for their portfolio, investors need to consider the same factors as previously noted, and understand their risks and advantages.

## DEBT INVESTMENT RISKS

### 1. Risk of Non-payment of either interest or principal repayment.

Most debt securities will be rated by either *Standard and Poors* or *Moody's*, regarding their opinion of whether the institution issu-

ing debt will pay both timely interest and principal repayment.

As a general rule, the lower the credit of the bond, the higher the interest will be on the debt to offset the additional risk of non-payment of either/and interest or principal.

Pension accounts and very conservative investors may choose government securities or high-grade corporate bonds, which other investors with a higher risk tolerance may choose high-yield debt for additional interest. The investor's perception in the aggregate will determine the market price of the debt instrument. If the market place determines there is a high risk of default, then an investor who purchases such a debt, besides receiving additional interest, will face the risk of possible default, or if there is an upgrade in the quality of the security, perhaps some additional price appreciation.

### 2. Currency or Foreign Exchange Risk

This risk pertains only to foreign or international securities. Foreign debt will often pay additional interest relative to U.S. debt. The investor needs to consider that despite the higher income, the principal repayment and interest will be paid in the foreign currency issued. If the foreign currency declines

\* Robert Cohen, CFP, is with the investment firm of Josephthal, Lyon & Ross, Incorporated, members of The New York Stock Exchange, located in Atlanta, Georgia. The views expressed in this article are those of the author and not necessarily those of Josephthal Lyon & Ross, Incorporated.



in value, then the investor will receive less proceeds than if the currency stayed the same or increased.

If the currency of the debt increased in value relative to the U.S. markets, then not only may the investor receive additional interest by the purchase of the foreign debt, but will also receive the additional proceeds due to the increase in the value of the currency.

### **3. Liquidity or Marketability Risk**

Many debt securities, especially high-grade corporate debt, municipal securities and government issues are very liquid, with a ready buyer if the investor chooses to sell his debt. Some debt securities are not as liquid, such as low-grade corporate securities and foreign securities. If a debt instrument is not liquid, then the seller may have to accept a lower price to sell his security.

### **4. Interest Rate Risk**

The value of fixed-income instruments (Bonds) will fluctuate inversely with changes in interest rates. As interest rates increase the value of bonds decline, and as interest rates decrease the value of bonds appreciate. Two other factors which influence the changes in bond prices are maturity and coupon rate. Long-term maturity bonds will fluctuate more than shorter term bonds, and the higher the coupon on the bond, the less the bond will fluctuate.

### **5. Inflation Risk**

The most important disadvantage of income-producing debt instruments, historically, is loss of purchasing power relative to inflation, assuming interest payments are not reinvested. An investor who purchases a twenty-year treasury bond of \$1,000,000 will receive the \$1,000,000 at maturity, but the purchase power of this \$1,000,000 may be substantially reduced due to inflation.

## **EQUITIES**

Equities are ownership interest in businesses, whereas fixed income investments are debt instruments. Fixed income investments promise to pay interest at predetermined rates and to return principal at maturity, whereas equity investments provide potential returns of appreciation and dividend payments.

As previously stated, the main disadvantage of debt instruments is inflation; that the purchasing power will diminish due to inflation. The main advantage of equities, historically, is total return potential which may, and often will, outpace inflation. An important advantage of debt instruments versus equities is that the returns are predetermined and the investor knows when he will receive proceeds. Equities, unlike debt instruments, have no predetermined payments. The main disadvantage of equities is short-term price fluctuation.

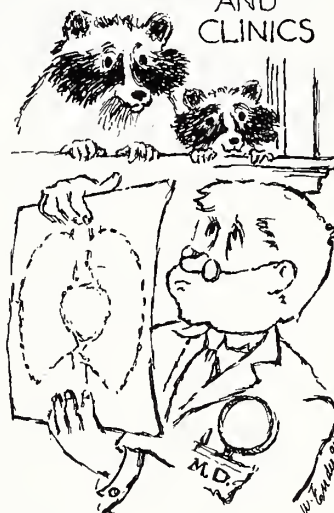
Investors, in deciding the percentage of assets between debt instruments and equities, need to balance their portfolio in accordance with their need for cash flow at certain dates and their need to keep pace with inflation. The objective of portfolio management is to properly manage the risks of inflation and volatility by structuring a portfolio between

the two different investment categories which will achieve the financial outcome desired relative to the investors unique needs.

The investor's time horizon is an important variable in determining the appropriate balance between debt and equity securities. Equities are more appropriate for investors with long-term horizons, while fixed-income investments will be more appropriate for investors who have short-time horizons. In the short-term, the risk of equity volatility is too great relative to the expected reward, but this changes as the time horizon lengthens. Investors who underestimate their investment time horizon will probably have a portfolio which will have too much emphasis on fixed income investments and not enough on equities. The major risk in their portfolio will be loss of future purchasing power due to inflation. Investors who understand their investment time horizon and invest accordingly, have a much higher probability of having a portfolio which is properly balanced between fixed-income and equity investments than investors who either underestimate or overestimate their investment time horizon.

I suggest, when you review your portfolio, that you determine your investment time-horizon and adjust your portfolio accordingly.

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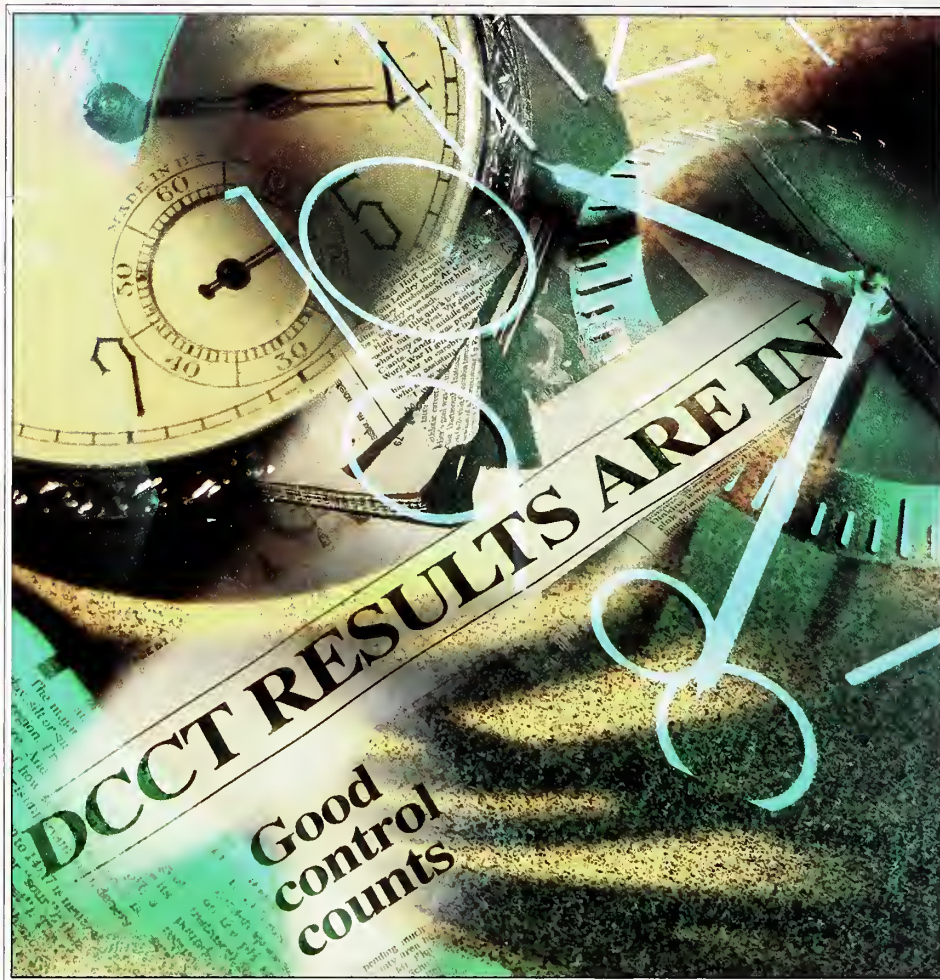
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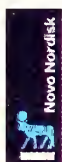
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500-93R January 1995



# The Devil in the Lack of Details

J. Kelley Avery, M.D.\*

## CASE REPORT

The patient was a 50-year-old man with a known inoperable "non-small cell" carcinoma of the right lung that had been diagnosed about one year earlier. It had been determined on exploration that the cancer involved the great vessels, making it inoperable. Radiation and chemotherapy had been given, the patient having completed the initial course of radiation therapy about three months before this visit to the cancer clinic of the medical center hospital where his oncologist practiced.

Fever, cough, and some increased shortness of breath began on the day before he came to the clinic. His regular physician was not available on that day, so he was seen by an associate, whose examination revealed temperature of 101°F, blood pressure 130/86 mm Hg, pulse 108/min, and some shortness of breath. It was noted that he could walk independently, without much increase in his breathlessness. He had been taking ampicillin for about a week because other members of the family had various upper respiratory symptoms. The examination revealed diffuse rales and rhonchi bilaterally, and the chest x-ray showed bilateral infiltrates, thought to represent pneumonitis, in addition to some radiation reaction, and not diffuse malignant spread.

The physician admitted the patient to the service of his regular oncologist and ordered IV fluids, IV and IM antibiotics, and routine assessment of blood gases prior to beginning O<sub>2</sub> at 2L via nasal catheter. Cardiac drugs were continued on the same schedule taken at home. The patient was noted to walk to a wheelchair in the hall of the clinic without difficulty.

The patient was admitted about 5:00 p.m. The routine nursing assessment was not completed. The admission laboratory tests were reported about 6:30 p.m., but the critical finding of a Po<sub>2</sub> of 32 was not recognized as a

value that needed to be reported to the admitting physician.

Three hours after admission, because of increasing complaints by the patient and his family, the nurse called the admitting physician and reported increasing shortness of breath and restlessness. At this time the Po<sub>2</sub> of 32 was reported. The attending physician thought that this value must be in error because it did not square with his clinical observation. He asked that the blood gases be repeated in the morning, and ordered a diuretic IV. His temperature was now 102°F, and Tylenol was ordered. Again, at 9:30 p.m., there was a physician order for a slight change in the IV fluid rate. At 10:30 p.m. a phone order increased the nasal O<sub>2</sub> from 2L to 4L. Each of these orders had been given in response to laboratory reports called to the admitting physician. At 7:45 a.m. the patient's regular oncologist was on the floor when the nurses reported that the patient was out of bed, sitting in a chair, with severe dyspnea. Additional diuretics were ordered and given, and the patient was transferred to a special care unit. On his arrival, he was unconscious and in respiratory arrest. A code was called, he was intubated, and while the code was in progress, the patient was sent to a critical care unit. On arrival at the CCU a normal cardiac rhythm and blood pressure had been reestablished, but over the next 24 hours it became apparent that there was no improvement in the mental status, and a neurologist pronounced the patient brain-dead. The family was advised, a corroborating second opinion was obtained, and the patient was removed from life support.

## LOSS PREVENTION COMMENTS

The patient was surely in his last days with his disease process! Because of increasing difficulty at home, he was brought to the doctor for some relief from his distress. It was not that he died that made this experience intolerable for the family, but that he did not get any relief from his suffering in his dying.

\* Dr. Avery is chairman of the Loss Prevention Committee, State Volunteer Mutual Insurance Company, Brentwood, Tennessee. This article appeared in the *Journal of the Tennessee Medical Association* in the April 1994. It is reprinted here with the author's permission.

The physician who is "on call" for an associate is at risk simply because he could not know the situation like the patient's doctor. In this case, the admitting physician trusted his clinical observation of the patient being able to walk from the examining room to a wheelchair in the hallway without a recognizable increase in shortness of breath more than he trusted the laboratory value of a  $PO_2$  of 32. We do not know what the patient's resting  $PO_2$  was at home much of the time. We cannot know what kind of tolerance for a low  $PO_2$  the patient had developed during the past year of surgery, chemotherapy, and radiation treatments. The admitting physician should have reacted in a more definitive manner to this finding. He could have ordered an immediate repeat of the test if he believed that a laboratory error was a possibility. He could have come in to the hospital to assess the patient to make sure that his condition had not significantly deteriorated since seen about three hours earlier. He should have done both!

The nursing documentation was unacceptable. The initial assessment had not been completed. There was only the flow sheet which noted "abnormal respiratory status" at 6:30 p.m., 10:30 p.m., and 1:00 a.m. without any elaboration in the progress notes. There was no nursing documentation from 1:00 a.m. until the nursing note timed 7:45 a.m. (late entry) which described going into

the room and finding the patient sitting in the chair experiencing real distress. Much of the negligence in this case has to be borne by the hospital, which, in fact, was the final determination.

The wife and daughter told of a nightmarish 14 hours during which numerous complaints to the nursing staff appeared to be ignored.

Numerous times the patient's increasing difficulty in breathing would be called to the attention of the nurse without any noticeable response. The wife stated that it was at her insistence that the physician had been called during the night. Finally, the 7:45 a.m. event brought the nurse only after the wife had begged for attention. At this time the attending physician was on the floor and immediate action was taken.

While it is easy to take the position that if there had been adequate and accurate nursing care, the physician would indeed have been in attendance, it was the physician's assumption that the  $PO_2$  of 32 on admission must have been a laboratory error that began this cascade of events that perhaps led to an earlier and more painful death than was necessary. It is a certainty that the family felt abandoned by those whose job it was to attend to the needs of their husband and father. The settlement was participated in equally by the hospital and the admitting physician.

## PRIMARY CARE PHYSICIANS

The Little Rock VA Medical Center has openings for Primary Care Physicians to work primarily in Ambulatory Care. Physicians trained in Internal Medicine and Family Practice, who have interest in providing primary care to a defined set of patients in collaboration with physician extenders, are encouraged to inquire. Excellent opportunities are available for continuing education and for teaching of students and house staff.

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# 1995 "DOCTORS OF THE DAY"

The AMS Department of Governmental Affairs would like to thank all of the volunteer physicians who became actively involved in the legislative process by serving as "Doctor of the Day" at the State Capitol.

Leslie Anderson, M.D.	James Harrell Jr., M.D.	Charles Rice, M.D.
C. Stanley Applegate Jr., M.D.	Hamilton R. Hart, M.D.	Paul F. Robinson, M.D.
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# THE CAPITOL

The Hogs added another win to their tremendously successful season. Doctors and legislators cheered, mingled and discussed issues. Some met with old buddies while others made new pals. And some even posed for pictures while others were caught candidly. All in all, *Day at the Capitol*, on February 15, 1995, at the Little Rock Hilton, was in some way properous for everyone.

.....



The noon luncheon brings in a full house.

Cabot Junior High School Cheerleaders, who led the group in cheers for the Hogs at the evening reception, pose with Representative Billi Fletcher, of Lonoke, Senator Jay Bradford, of Pine Bluff, and Representative David Choate, of Beebe.



Dr. Bob Langston, of Harrison, Lt. Gov. Mike Huckabee, of Texarkana, and Ken LaMastus, AMS Executive Vice President at the luncheon.





**Mike Mitchell, AMS General Counsel, and Phil Matthews, Arkansas Hospital Senior V.P., at the morning legislative briefing.**



**Lt. Gov. Mike Huckabee (speaking) with Dr. Charles Rodgers, GAC Chairman, and Dr. James M. Kolb Jr., AMS President, at the luncheon.**



**Rep. Jerry Hinshaw, of Springdale, Rep. James Dietz, of NLR, Dr. John Hestin, of DeWitt, Charlie Whorton, of Huntsville, and Mrs. Billie Hestin at the evening reception.**



**Rep. James Jordon, of Monticello, Sen. Bill Walters, of Greenwood, Shirley Walters and Bonnie Jordon at the evening reception.**



**Dr. Bill Jones, of Little Rock, Dr. James Armstrong, of Ashdown, Rep. Barbara Horn, of Foreman, Rep. Jim Argue, of Little Rock, and Mrs. Ruth Jones at the evening reception.**



**Guests listen to various speakers at the luncheon.**



*Listed below are the addresses of the 80th General Assembly. You are encouraged to write and thank them for their efforts during the recent legislative session.*

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(1995-1996)

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Honorable Nick Wilson, P.O. Box 525, Pocahontas, 72455



# A Message from the Medical Student Section

Steven B. Osmon, Immediate Past President

Spring is here, the last one as a medical student for the seniors, major medical reform is dead, and Newt Gingrich is now in control.

Seniors were on the interview trail for most of the Fall, entered their "Match" list and bit nubby fingers waiting for the ironically chosen "Match Day" - March 15 - The Ides of March. On that fateful day at the Comedy House (more irony), envelopes were chosen by random drawing starting at 11 a.m. As they were selected, each senior placed a dollar into a fish bowl, ripped open their envelope and announced where they matched. The fish bowl of money went to the last senior as compensation for waiting.

Juniors are slugging along through rotations toward the light at the end of the tunnel. Sophomores have made it over the "Hump" and will be coasting downhill until their collective blood pressures exceed the national debt while studying for the United States Medical Licensure Exam Step I coming up in June. The freshmen are recovering from acute vertigo and looking forward to a well-deserved summer break.

The medical students have been active in supporting and opposing legislation at the state and federal level. In October, Mrs. Sherry Walker spoke to the medical student section concerning Referred Act One - The Soft Drink Tax - and gave us a lot of information to disseminate among our patients. Even with the overwhelming odds of money and questionable advertising, the "Cola Cartel" could not defeat the Committee to Preserve the Medicaid Trust Fund, Chaired by Sherry Walker, and the common sense of the Arkansas voters.

Medical students rose to the challenge of federal legislation in two areas: opposing HR 3869 "Minority Health Improvement Act" and supporting the "Elementary and Secondary Education Act of 1994." HR 3869 has a great name, but part of the bill is designed to force poor medical students into primary care residencies if they accept one of several need based federal loans. The American Medical Association Student Section opposed this legislation and called on the state sections for action. The Arkansas Medical Society Student Section quickly gathered signatures protesting restricting residency choice. The bill is in conference between the two houses, but it does not seem likely the detrimental language will be removed.

A victory was scored for medical students by the passage of a joint conference report attached to the Elementary and Secondary Education Act of 1994 (ESEA). Initially, the AMA and Department of Education agreed upon a formula for economic hardship. Without consulting the AMA, the Department of Education changed

the formula to the detriment of residents and students. The AMA again asked for state sections to voice our concerns. The AMS Student Section pulled their weight. Within a day we collected two pages of signatures and faxed them to our Senators. Additionally, we encouraged phone calls to the local offices of Senator Pryor and Senator Bumpers. Calls and letters from medical students throughout the country thwarted a filibuster and culminated in an overwhelming passage of the act and of the desired economic hardship deferment language. Residents who received their first Federal Insured loan prior to July 1, 1993, continue to be eligible for a two-year deferment followed by forbearance throughout their residency. New resident borrowers can seek up to three years economic hardship deferment whenever their federal education debt burden equals or exceeds 20% of their adjusted *gross* income (AGI) AND when their AGI minus federal education debt is less than 220% of the poverty level for a family of two (\$21,000 currently). "Federal Education Debt Burden" shall consist of the annual total payments a borrower would be expected to make on all federal education loans pursuant to a standard 10-year repayment schedule. It is estimated that average income residents with average student debt load will qualify for deferment. All of this is bittersweet. We lost the deferment period for all residents who took their first loan after July 1, 1993, but we were able to save a mechanism which will give relief to most of them. A big thanks to the students who helped on both these issues.

Elections for new student officers were held in February. AMS Student President is Brian Meyer (M2), Vice-President Mike Penney (M3), Secretary Michael Wiggins and Delegate Marisa Turner. Brian and Mike were on the old staff, and I trust they will continue to improve the student section.

My time as a medical student is quickly drawing to a close. I will be starting a general surgery residency at the Medical College of Virginia in Richmond. I encourage the continued support by Arkansas physicians for the Arkansas Medical Society, Medical Student Section, and the UAMS College of Medicine. We all need to become more involved. I would like to thank the staff at the Arkansas Medical Society, especially Ms. Laura Harrison, for the work and support of medical student activities, and the AMS Student Officers for their time and effort: Vice-President Mike Penney M3, Secretary Brian Meyer M2, Delegate Sherlita Reeves M3, and Alternate Delegate Brad Johnson M3.

Thank you for your time and support.



## Cardiology Commentary and Update

Muthusamy Velusamy, M.B., M.R.C.P.\*

Mark L. Mullens, M.D.\*

James E. Harrell, Jr., M.D.\*\*

J. David Talley, M.D.\*

### THE CHEST X-RAY IN MITRAL STENOSIS

#### INTRODUCTION

There is a resurgence of rheumatic fever in the United States.<sup>1</sup> Two recent outbreaks were located in Memphis and Nashville.<sup>2,3</sup> While typical clinical characteristics of these epidemics were seen (school aged children without antecedent illness), there is a suggestion that the return is due to a particularly "virulent" strain of group A streptococcus.<sup>4</sup>

Given the increase in rheumatic fever in neighboring states, it is important to recognize that subtle findings on the chest x-ray may be the only clues to the presence of mitral stenosis. This issue of *CCU* will review the possible radiographic findings seen on the posterior-anterior chest x-ray in a patient with rheumatic mitral stenosis.

#### PATIENT PRESENTATION

A 44-year-old native Arkansan presented with increasing dyspnea, orthopnea and paroxysmal nocturnal dyspnea. She had rheumatic fever when she was six years old which recurred four years later despite penicillin prophylaxis. She had been in chronic atrial fibrillation since 33 years of age. Due to progressive shortness of breath, she could no longer continue working as a hair stylist.

On physical examination, the pulse was irregularly irregular and there was a loud first heart sound and pulmonary component of the second heart sound. An opening snap and a rumbling, low pitched, mid diastolic murmur were heard at the apex. Inspiratory crackles were heard in the lung bases. Jugular venous disten-

sion, hepatomegaly and peripheral edema were absent.

The ECG showed atrial fibrillation. The chest x-ray (*Figure 1*) demonstrated a double density within the cardiac silhouette, a straight left heart border, and cephalization of the pulmonary vasculature. A transthoracic echocardiogram showed a thickened mitral valve with an area of 1 cm<sup>2</sup>, mitral annular calcification and a markedly dilated left atrium (55 mm by M-mode echocardiography, normal = 19-40 mm). Cardiac catheterization confirmed the presence of critical mitral stenosis with a calculated mitral valve area of 0.5 cm<sup>2</sup>, mean transmitral gradient of 16 mmHg, cardiac output of 2.5 liters/minute, pulmonary artery pressure of 37/21 mmHg, and normal coronary arteries.

At the time of open heart surgery, the anterior leaflet was scarred, fibrosed and prolapsed above the plane of the mitral valve annulus. The posterior leaflet was attached to the ventricular surface. The extensive deformity prevented mitral valve repair. The anterior leaflet was excised and a #27 St. Jude Medical prosthetic valve (St. Jude Medical Inc., St. Paul, MN) was inserted in the mitral position. The post operative period was uneventful and the patient was discharged home in sinus rhythm one week after surgery.

#### DISCUSSION

There are two categories of chest x-ray findings of mitral stenosis. The first roughly reflect the magnitude of pressure overload of the left atrium, pulmonary veins and arteries, and right ventricle. The second group of changes reflects the duration of chronic pulmonary hypertension.<sup>5</sup>

The initial manifestation of pressure overload is a *straight left heart border* seen in the posterior-anterior chest x-ray projection (*Figure 1*). This finding is due to enlargement of the left atrial appendage which fills the space between the pulmonary artery and left ventricle.<sup>6</sup>

\* Drs. Velusamy, Mullens, and Talley are with the University of Arkansas for Medical Sciences, Division of Cardiology, Department of Internal Medicine.

\*\* Dr. Harrell is with the University of Arkansas for Medical Sciences, Division of Cardiothoracic Surgery.



The second development is *left atrial enlargement*. The left atrium expands in several directions. Expansion to the right of the spine and right atrial border produces a *double density* shadow within the cardiac silhouette (Figure 1). Superior displacement elevates the left main stem bronchus and spreads the carina apart. Posterior enlargement deforms the esophagus. Extreme left atrial enlargement, which only rarely occurs in pure mitral stenosis, suggests the possibility of accompanying mitral regurgitation. There is a direct correlation between left atrial size and the presence of atrial fibrillation but not left atrial pressure.<sup>6</sup>

The third set of pressure overload changes are seen in the pulmonary vasculature. An abnormal blood flow pattern or accumulation of fluid in the interstitial spaces may be seen. With chronic pulmonary venous hypertension, the pressure increase is greater in the lung bases than the apices. This leads to constriction of the basilar vessels and distention of the upper-lobe vessels with blood flow distributed to the upper lobes. This reversal of the normal blood flow pattern is known as "*cephalization*."

Pulmonary capillaries begin to leak fluid into the interstitial spaces when left atrial pressure exceeds 20-25 mmHg. Gradual fluid accumulation leads to lymphatic engorgement and interlobular septal edema best seen in the lung periphery. Transverse linear lines at the bases, approximately 2 cm long, representing fluid in the intercommunicating lymphatics, are known as *Kerley B-lines*.<sup>7</sup> (Kerley A-lines are 5-10 cm. long and extend upward from the hilum. The combination of Kerley A and B-lines form a reticular pattern and are referred to as Kerley C-lines.) Severe mitral stenosis is suggested by the presence of Kerley B-lines. One study of patients with mitral stenosis found a mean left atrial pressure of 23 mmHg, mean pulmonary artery pressure of 40 mmHg, and calculated mitral valve area of 1.1 cm<sup>2</sup> when Kerley B-lines were present.<sup>6</sup> Sudden elevation of the pulmonary venous pressure may produce a "*butterfly*" or "*bat-wing*" appearance typical of acute pulmonary edema.<sup>8</sup>

Calcification of the mitral valve, left atrium, or lung suggests longstanding pulmonary venous hypertension. *Calcification* of the mitral valve apparatus and left atrial wall occurs in less than 1 percent of patients with mitral valvular disease.<sup>9</sup> Calcium in the mitral valve suggests mitral stenosis, while the circular shape of mitral annular calcification is a nonspecific finding. Calcium may be in the left atrial wall or attached mural thrombus. The fine



Figure 1. A posterior-anterior chest x-ray of a patient with mitral stenosis. Arrows outline the left atrium which is seen as a double density through the cardiac silhouette.

granular shadows of *hemosiderin* (blood pigment in the interstitial tissue) are seen in all lung fields. Pulmonary calcification is seen in the lower lobes and is known as *mitral stones*.

## CONCLUSION

The chest x-ray is a mirror of mitral stenosis, reflecting the severity and duration of mitral valve obstruction. Pressure elevation is best recognized by alternation in vascular and interstitial pulmonary changes. Calcification indicates longstanding mitral stenosis. Attention to subtle changes can be the clue to recognizing this increasingly prevalent and correctable cardiac disease.

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# Outdoor MD

Information provided by  
the Arkansas Game & Fish Commission

## NEW HUNTING, FISHING LICENSES GO INTO EFFECT

New prices for Arkansas hunting and fishing licenses went into effect March 1 following action by the state's General Assembly and Governor Jim Guy Tucker.

The price for resident licenses has gone up \$1 (\$2 for combination licenses), but it's temporary. The increases will automatically revert to the old prices on July 1, 1997.

The increase was passed by the legislature and signed into law by the governor to provide some added income to the financially strapped Arkansas Game and Fish Commission. The Commission hopes to benefit from a conservation sales tax that backers are trying to get on the November 1996 general election ballot. Court action struck down a conservation sales tax proposal last November because it had not been given proper public notice as required by the state Constitution. The conservation sales tax requires a constitutional amendment.

The new license fees now in effect are:

- \* Resident combination license (hunting and fishing), \$37.50.
- \* Resident fisheries conservation license, \$11.50.
- \* Resident wildlife conservation license (hunting), \$11.50.
- \* Resident three-day fishing license, \$7.50.
- \* Resident sportsman's license (hunting), \$26.
- \* Resident 65-plus lifetime fishing license, \$11.50.
- \* Resident 65-plus lifetime hunting license, \$26.
- \* Resident 65-plus lifetime combination license, \$37.50.

The wildlife conservation license, \$11.50, allows a hunter to take only one deer with a modern gun during the season. Special hunting permits, formerly sold for \$10 and allowing an additional deer, have been eliminated. Also eliminated are special hunting permits for archery, muzzleloader, furbearers, bear and turkey. Sportsmen should purchase the \$26 sportsman's license if they want to take more than one deer; or hunt with archery or muzzleloading equipment; or hunt turkey, bear or furbearers. Special hunt permits purchased on or before February 28, 1995, are still valid. Special hunt permits bought after February 28 aren't valid, and license dealers have been instructed not to sell them after February 28. License trade-ins are not allowed. A hunter can't buy an \$11.50 wildlife conservation license and later exchange it for a \$26 sportsman's license by paying the difference in price.

All currently valid licenses will remain in effect until their expiration date, which is one year from the date of purchase.

The Commission has earmarked the additional income from the license increase toward hiring 12 additional wildlife officers and for their equipment, including some new four-wheel drive pickup trucks.

Under Amendment 35 of Arkansas' Constitution, increases in resident licenses must be approved by the legislature. Non-resident license prices can be set by the Commission without legislative action. The 1995 increase is the first in a decade for resident licenses; non-resident licenses were raised last year by the Commission.

## WATERFOWL TASK FORCE OPERATION RESULTS IN 247 CITATIONS

Teams of state wildlife officers from across Arkansas, working as the Waterfowl Task Force, issued 247 citations to duck hunters during the 1994-95 hunting season.

Loren Hitchcock, chief of enforcement for the Arkansas Game and Fish Commission, said 26 separate operations took place during the waterfowl season. The task force had 40 state wildlife officers, 20 who underwent special training in a three-day seminar last fall at the H. C. Morris Training Center near Mayflower. The others had been trained in previous years.

The 247 violations resulted in bonds of \$24,442 being posted. Most numerous violations were for not having federal duck stamps, 44 citations.

Other leading violations found by the task force were: shooting ducks before or after legal shooting hours, 21 citations; possessing lead shot, 29 citations; no state waterfowl stamp, 36 citations; possessing over the limit of ducks or geese, 22 citations; shotguns not properly plugged, 15 citations; 24

## STATISTICS SHOW HUNTING SAFEST OUTDOOR SPORT

Hunting has by far the lowest number of outdoor recreation related injuries, according to the National Safety Council. The council's report, based on injuries requiring hospital emergency room treatment, lists injuries by types of outdoor recreation.

With 18,500,000 participants in the United States, hunting had only 1,475 injuries over the year - or 8 injuries per 100,000 participants. Other outdoor sports:

Football: 14,700,000 participants; 319,157 injuries; rate (per 100,000) 2,171.

Baseball: 15,400,000; 321,806; 2,089.

Soccer: 11,200,000; 101,946; 910.

Bicycling: 56,800,000; 514,738; 905.

Skateboarding: 7,500,000; 65,819; 869.

Horse riding: 10,100,000; 46,928; 465.

Ice skating: 7,000,000; 23,443; 335.

Fishing: 46,500,000; 65,677; 141.

Tennis: 18,800,000; 22,507; 120.

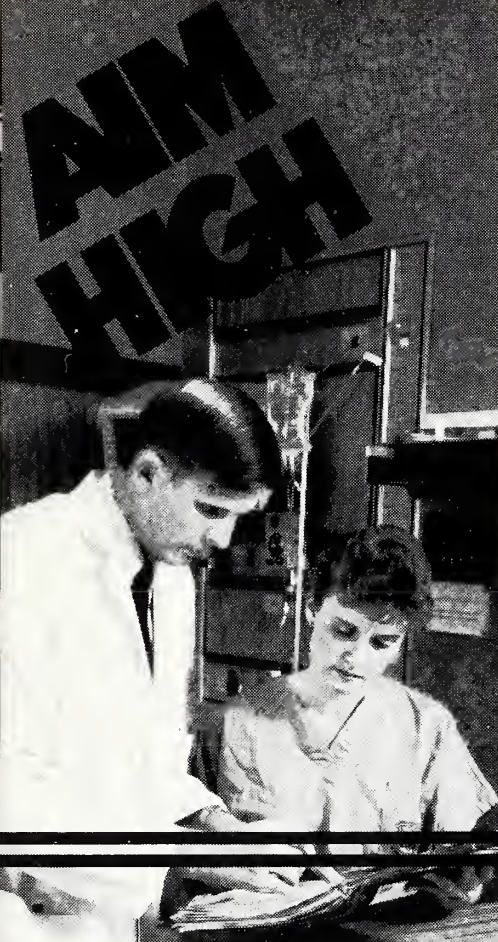
Golf: 23,200,000; 24,224; 104.

Swimming: 70,500,000; 65,757; 93.

citations of boating regulations; and no hunting licenses, 21 citations.

Loren Hitchcock, chief of enforcement for the Commission, said, "Team waterfowl enforcement can be an effective augmentative tool for the Game and Fish Commission's Enforcement Division to show its commitment to the future of waterfowl."





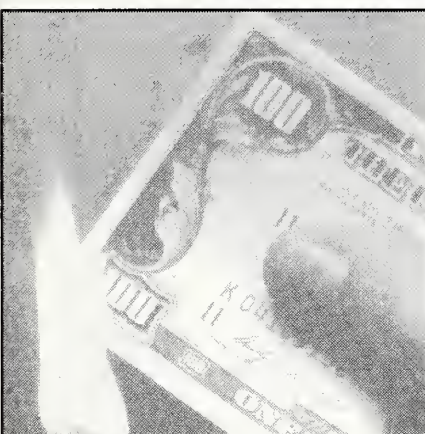
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# Arkansas HIV/AIDS Report 1983-1995

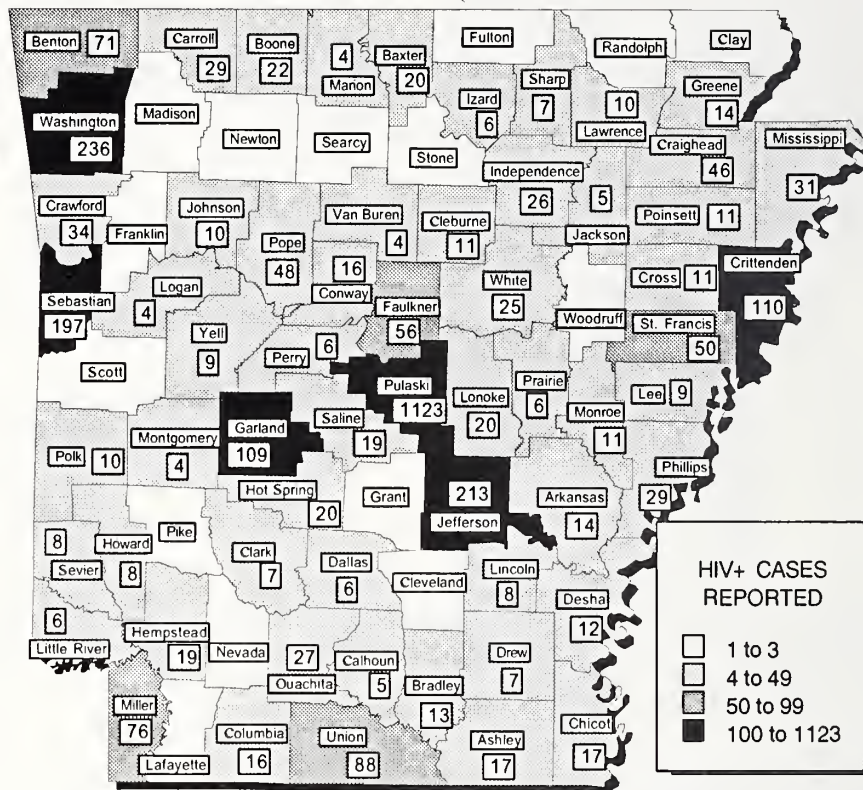
## HIV In Arkansas

### Reporting Requirements

HIV and AIDS case reporting by name and address is required by Act 967 of 1991 and the rules and regulations of the Arkansas Board of Health. Reporting is required at the time a person tests positive and again when they become symptomatic with AIDS. Those required to report include: physicians, nurses, infection control practitioners/infection control committees, laboratory directors, medical directors of nursing homes and home health agencies, clinic administrators, program directors of State agencies and/or persons as may be required by the Board of Health.

Questions regarding reporting forms and requirements may be directed to Jan Bunch, HIV/AIDS Surveillance Administrator, at (501) 661-2387.

**NOTE:** AIDS statistics are a subset of HIV statistics.



County of residence at the time of test for the 3,121 Arkansans reported to be HIV+. (4/12/95)

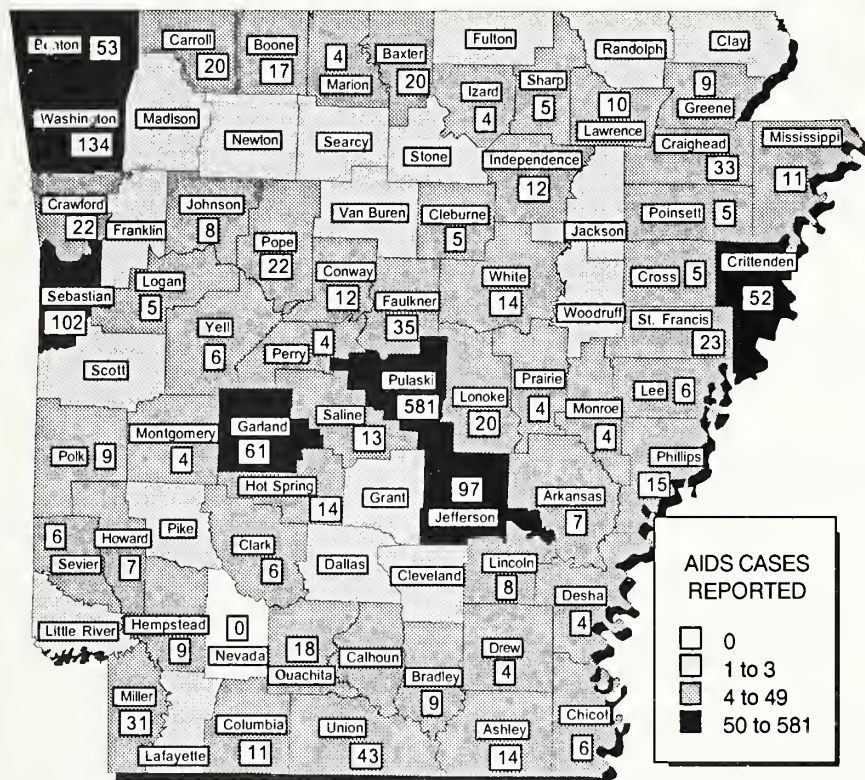
HIV		83-87	1988	1989	1990	1991	1992	1993	1994	1995	Total	%
SEX	Male	100	215	248	413	400	392	352	367	106	2,593	83
	Female	8	26	37	68	85	81	94	90	39	528	17
AGE	<5	1	1	2	8	13	6	3	7	1	42	1
	5-12	0	1	1	5	1	2	1	0	0	11	0
	13-19	0	7	8	14	19	25	11	22	3	109	4
	20-29	33	110	123	183	149	156	175	145	48	1,122	36
	30-39	44	86	104	196	208	179	168	171	57	1,213	39
	40-49	22	25	35	56	70	67	65	77	24	441	14
	>49	8	6	11	17	22	38	23	35	12	172	6
RACE	White	87	170	174	328	298	291	277	258	96	1,979	63
	Black	21	69	106	151	184	173	163	183	45	1,095	35
	Other/Unknown	0	2	5	2	3	9	6	16	4	47	2
RISK	Male/Male Sex	64	137	139	243	244	260	240	226	33	1,586	51
	Injection Drug User (IDU)	13	30	48	73	96	75	64	71	16	486	16
	Male/Male Sex & IDU	19	23	24	32	30	34	26	23	5	216	7
	Heterosexual	5	25	26	60	65	68	101	87	13	450	14
	Transfusion	5	5	4	6	8	10	0	1	0	39	1
	Perinatal	1	1	2	8	13	8	4	7	0	44	1
	Hemophilic	0	0	6	18	5	6	2	3	2	42	1
	Undetermined	1	20	36	41	24	12	9	39	76	258	8
HIV CASES BY YEAR		108	241	285	481	485	473	446	457	145	3,121	100

Arkansas Department of Health HIV/AIDS Surveillance Program



# Arkansas HIV/AIDS Report

## 1983-1995



Of the 3,121 Arkansans reported to be HIV+, 1,710 have been diagnosed with AIDS. (4/12/95)

## AIDS In Arkansas

### Reporting Requirements

HIV and AIDS case reporting by name and address is required by Act 967 of 1991 and the rules and regulations of the Arkansas Board of Health. Reporting is required at the time a person tests positive and again when they become symptomatic with AIDS. Those required to report include: physicians, nurses, infection control practitioners/infection control committees, laboratory directors, medical directors of nursing homes and home health agencies, clinic administrators, program directors of State agencies and/or persons as may be required by the Board of Health.

Questions regarding reporting forms and requirements may be directed to Jan Bunch, HIV/AIDS Surveillance Administrator, at (501) 661-2387.

**NOTE:** AIDS statistics are a subset of HIV statistics.

AIDS		83-87	1988	1989	1990	1991	1992	1993	1994	1995	Total	%
SEX	Male	85	77	70	170	176	250	336	253	72	1,489	87
	Female	5	6	10	20	25	35	64	42	13	220	13
AGE	<5	0	1	1	6	6	3	2	1	1	21	1
	5-12	0	1	0	1	1	0	1	0	0	4	0
	13-19	0	0	0	4	3	2	4	3	0	16	1
	20-29	31	27	24	55	57	81	110	67	18	470	27
	30-39	39	36	41	78	80	128	178	133	37	750	44
	40-49	15	10	7	35	41	52	78	61	18	317	19
	>49	5	8	7	11	13	19	27	30	11	131	8
RACE	White	74	61	58	141	134	206	275	190	55	1,194	70
	Black	16	20	21	47	66	75	121	102	28	496	29
	Other/Unknown	0	2	1	2	1	4	4	3	2	19	1
RISK	Male/Male Sex	55	59	50	122	120	182	237	162	48	1,035	62
	Injection Drug User (IDU)	12	4	11	18	29	45	70	46	14	245	14
	Male/Male Sex & IDU	16	6	6	18	17	21	26	23	3	135	8
	Heterosexual	5	3	7	11	12	24	52	40	5	157	9
	Transfusion	2	7	3	7	11	3	2	4	0	39	2
	Perinatal	0	1	1	6	6	3	3	1	1	22	1
	Hemophiliac	0	1	1	5	5	4	5	6	2	29	2
	Undetermined	0	2	1	3	1	3	5	13	10	47	2
AIDS CASES BY YEAR		90	83	80	190	201	285	400	295	85	1,709	100

Arkansas Department of Health HIV/AIDS Surveillance Program



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**Tinsman, Thomas**, Family Practice. Medical Education, University of Missouri, Columbia, 1979. Internship/Residency, Family Practice, AHEC-Fort Smith, 1980/1982. Board certified.

## HARRISON

**Mears, Bill F.**, Cardiology. Medical Education, UAMS, 1982. Internship/Residency, UAMS, 1983/1985. Board certified.

## HOT SPRINGS

**Heinemann, Phyllis E.**, Pediatrics. Medical Education, UAMS, 1979. Internship/Residency, Children's Mercy Hospital, Kansas City, Missouri. Board certified.

**Lee, Allen R.**, Cardiology. Medical Education, UAMS, 1971. Internship/Residency, University of Arkansas Hospital, 1974/1976.

## LITTLE ROCK

**Ackerman, William E., III**, Anesthesiology. Medical Education, University of Louisville School of Medicine, Kentucky, 1976. Internship, Good Samaritan Hospital, 1977. Residency, Children's Hospital, Louisville, Kentucky and University of Cincinnati, 1981. Board certified.

**Curtis, Mary A.**, Pediatrics/Genetics. Medical Education, University of Iowa, 1967. Internship, University of Iowa, 1968. Residency, University of Iowa/University of Tennessee, 1972. Board certified.

**White, Paul Clark, Jr.**, Preventive Medicine. Medical Education, Emory University, Atlanta, Georgia, 1960. Internship/Residency, U.S. Navy, 1961/1967. Board certified.

## ROGERS

**Schaefer, George V.**, Pediatrics. Medical Education, UAMS, 1988. Internship/Residency, University of Cincinnati, Children's Hospital, 1989/1991. Board certified.

## TEXARKANA

**Gocio, John Coleman**, Cardiovascular & Thoracic Surgery. Medical Education, UAMS, 1979. Internship/Residency, UAMS, 1984/1993. Board certified.

## RESIDENTS

**Bowen, Bryan David**. Medical Education, UAMS, 1994. Internship, AHEC-SW.

**Elliot, Timothy H.**, Internal Medicine. Medical Education, UTESA. Internship/Residency, University of Missouri, Kansas City, 1994/1996.

**Garrett, George C.** Medical Education, UAMS, 1975. Internship, UAMS. Residency, OB-GYN, Louisiana State University, Shreveport. Second Residency, Family Medicine, AHEC-SW.

**Hashmi, Shakeb**, Internal Medicine. Medical Education, Aga Khan University, Medical College, Pakistan, 1992. Internship/Residency, University of Tennessee, Memphis, 1994/1996.

**Kile, Herman Lawson, Jr.**, Family Practice. Medical Education, Louisiana State University Medical Center, Shreveport, 1994. Internship, AHEC-SW, 1997.

**Moore, Jesse Daniel**, Family Medicine. Medical Education, UAMS, 1993. Residency, AHEC-SW, 1996.

**Moser, Karl Dan**. Medical Education, University of Texas Southwestern Medical School, Dallas, 1969. Internship/Residency, UAMS, 1970/1974. Second Residency, Family Practice, AHEC-SW.

**Sarna, Paul Duane**, Family Practice. Medical Education, UAMS, 1993. Internship/Residency, AHEC-SW, 1994/1996.

**Stussy, Shawn Alan**, Family Medicine. Medical Education, UAMS, 1994. Internship, AHEC-SW.

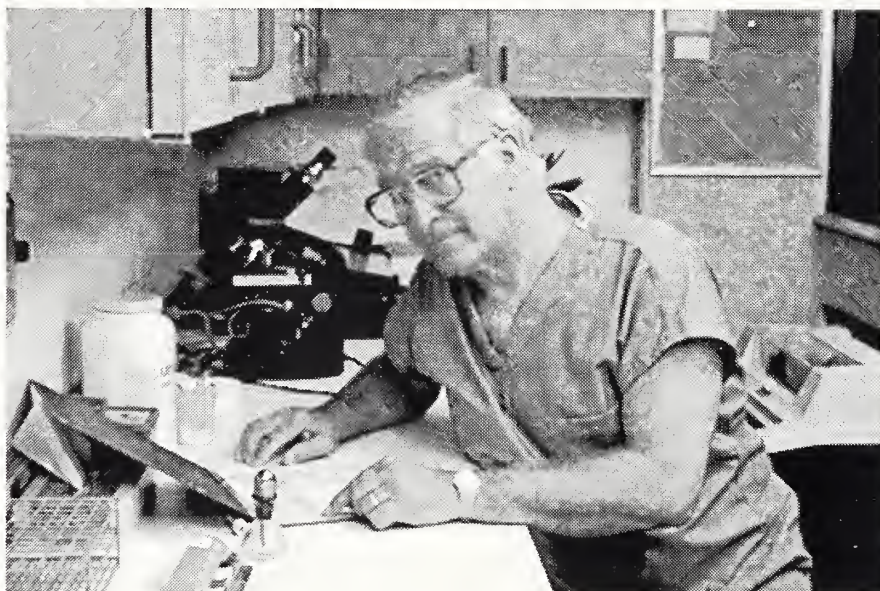
**Yearwood, Kirtley A.**, Pathology. Medical Education, UAMS, 1993. Internship/Residency, George Washington University, Washington D.C., 1993/current.

## STUDENTS

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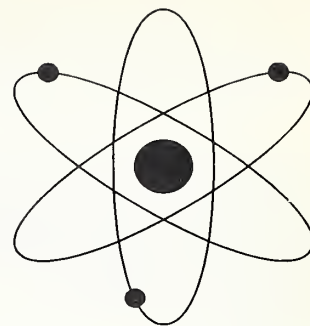
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# Radiological Case of the Month



Joe W. Crow, M.D.  
David Harshfield, M.D.  
Kelly Grigg, B.A.

## History:

This sixteen year old presented with right ankle pain related to ankle twist trauma from "roller blading."



**Figure 1:** The P.A. film of the right ankle was interpreted as normal. Note the lack of trabecular detail of the bones compared to *Figure 2*. This "lightness" of the film is due to poor penetration of the x-ray beam. In addition, the ankle is not properly positioned (note rotation compared to *Figure 2*) which further compromises detail.



**Figure 2:** This P.A. ankle film was performed with better penetration and positioning. Even with a maximized technique the Salter III fracture is only faintly visible.

# Salter III Fracture of Distal Right Tibia

## Findings:

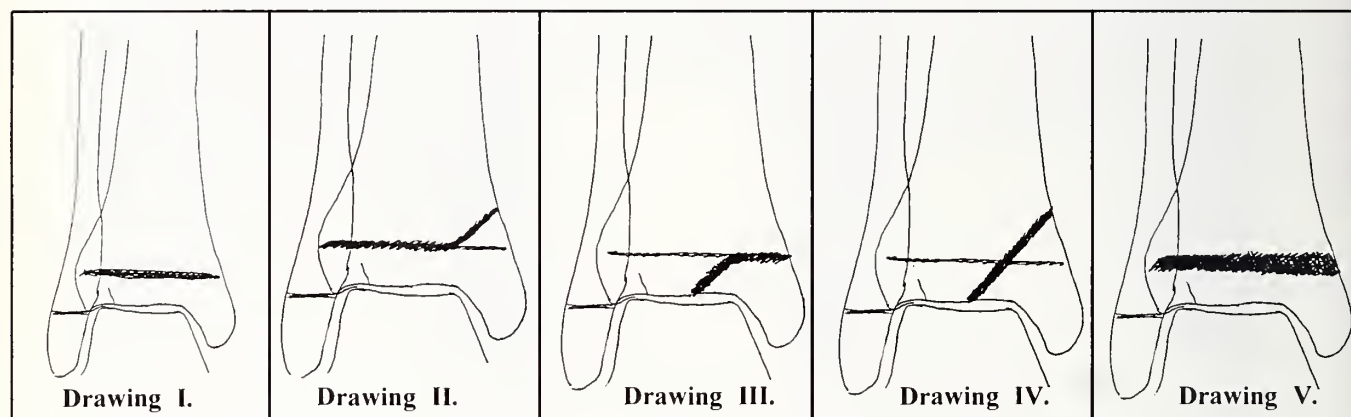
The importance of proper technique and positioning cannot be over emphasized in obtaining diagnostic quality radiographs. Optimum technique may not always be possible. Over 55% of all x-rays in the U.S. are performed in non-radiology offices and the equipment may be a limiting factor, particularly with large patients. This case presentation illustrates the importance of the clinical presentation in conjunction with the imaging findings. This patient had significant symptoms, specifically point tenderness over the epiphyseal plate of the medial malleolus. The clinician did not let the initial "normal" ankle film (*Figure 1*) deter him from his working diagnosis. When the technique was optimized, the Salter III fracture became visible substantiating the clinical diagnosis of an occult fracture.

## Discussion:

The Salter-Harris Classification of epiphyseal fractures in children remains the best known and most widely used despite publication of several other systems: (Poland, Weber, Aitken, Rang, Ogden). Salter-Harris devised this classification to prognosticate outcome as well as to aid in treatment options. Today these premises are recognized as somewhat valid but the primary usefulness of the classification remains with the x-ray appearance of the fractures. Rang has added a sixth category of injury resulting in peripheral growth arrest due to direct contusion to the surrounding periosteum at the growth line. Today Family Practitioners, Emergency Room physicians and other primary care providers are able to communicate directly with the orthopedic surgeons using the common language of the Salter-Harris Classification.

In this particular case, the patient is lucky since there is no displacement in his Salter III fracture of the distal tibia. He was treated with short leg cast and allowed toe touch weight bearing. No growth disturbance or angular deformity is expected in such a case.

## The Salter-Harris Classification of Epiphyseal Fractures



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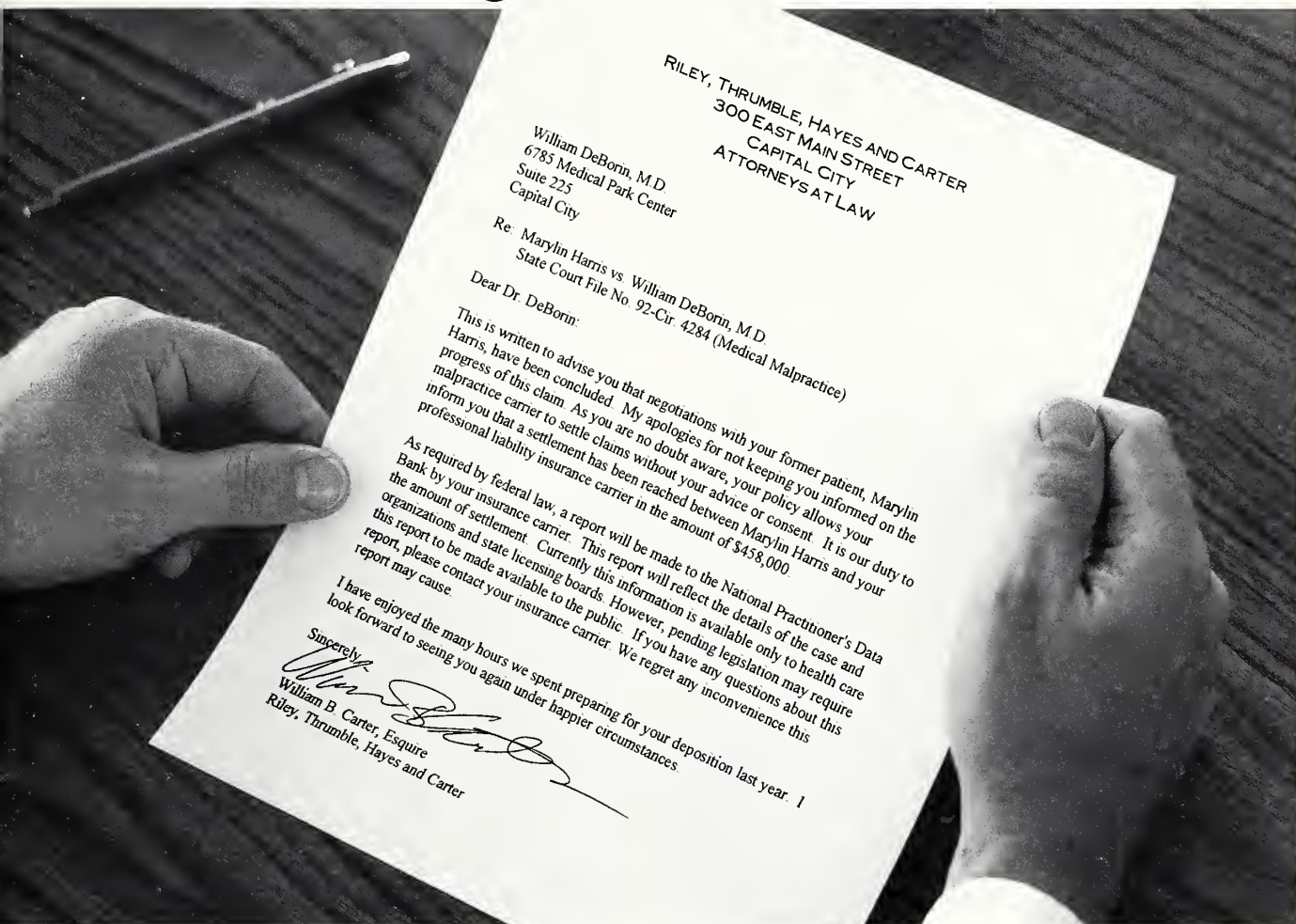
Editor: David Harshfield, M.D. is Director of Radiology at Riverside Radiology Group in North Little Rock & Clinical Assoc. Prof. of Radiology at UAMS.

First Author: Joe W. Crow, M.D. is Director of Orthopedics at the American Orthopedic Clinic in NLR and past chairman of the Department of Orthopedics, Scott AFB Medical Center, Scott AFB, Illinois.

Contributor: Kelly Grigg is a premedical student research assistant at UAMS.



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# Medicine in the News

## Message from the Arkansas Department of Health - C.L. Beverly, M.D., M.P.H., Medical Director, Division of AIDS/STD

### Notification of two types of Bicillin Injectables

To All Health Care Providers who treat patients with syphilis: Be advised that there are two injectables on the market that are called Bicillin: Bicillin C-R and Bicillin L-A. **Only the Bicillin L-A preparation should be used to treat syphilis.** The 1995 PDR states that the Bicillin C-R "...should not be used in the treatment of venereal diseases, including syphilis, gonorrhea, yaws, bejel and pinta."

## HEALTH CARE ACCESS FOUNDATION

As of April 1, 1995, the Arkansas Health Care Access Foundation has provided free medical service to 10,018 medically indigent persons, received 17,102 applications and enrolled 34,439 persons. This program has 1,681 volunteer health care providers including medical doctors, dentists, hospitals, home health agencies and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.

## 3M, RCI Commemorate Radiology Centennial with 100-year Time Capsule

In recognition of radiology's 100th anniversary in 1995, 3M Medical Imaging Systems and Radiology Centennial, Inc. (RCI) are inviting the radiology community to contribute content ideas for a 100-year time capsule that will be opened during radiology's bicentennial in 2095.

3M and RCI are issuing a call for ideas to determine the time capsule materials. Plans are to close the completed time capsule during a special ceremony at RSNA '95. The American College of Radiology (ACR) has agreed to house the time capsule at its headquarters in Reston, Va.

"This is a wonderful way for radiologists a hundred years from now to learn of our advances, procedures, challenges, ethics and opinions of the radiology industry in 1995," said Helen C. Redman, M.D., of Dallas, RCI first vice president. "We encourage everyone to submit ideas and take part in this history-making event."

"We're excited to share the opportunity with RCI to help preserve radiology's history for the future generations," said Clifford T. Pinder, division vice president, 3M Medical Imaging Systems.

Time capsule content ideas will be accepted through July 31, 1995. Ideas should portray the state of radiology in 1995 and its first 100 years, and can include anything from professional papers and illustrations to actual equipment. The ideas can address a broad range of

topics such as the general practice of radiology, subspecialties, therapeutic applications of radiology, work flow, economic and departmental issues and the role of technologists. Submission of time capsule content ideas will be opened to the entire radiology community, including individuals from commercial organizations.

An RCI-designated panel will choose the ideas, then create and gather time capsule materials based on the selected ideas. Duplicates of the time capsule materials will be archived at the ACR and selected medical libraries. Originators of the selected content ideas will receive a gift from 3M.

For more information on the time capsule and for idea submission guidelines, call Bill Fuesz at (612) 733-8329, or write: RCI/3M Radiology Centennial Time Capsule, 3M Center, Building 223-2SW-03, St. Paul, MN, 55144-1000.

## Computer Catches Missed Cancers on Screening Mammograms

Whitaker-funded scientists at the University of Chicago have begun prospective testing of a computerized "second reader" of mammograms that they believe will catch as many as half of the cancers that a radiologist may miss.

The first sign of breast cancer can be tiny white speckles on an X-ray. These speckles, as small as pinpoints, are caused by calcium deposits (microcalcifications) that may occur before a tumor can be seen or felt. They show up on mammograms but are sometimes overlooked. Even small tumors may be missed by a radiologist because of distracting shadows, eye strain and ordinary human error.

"The task of screening for breast cancer can be likened to looking for five needles in 1,000 haystacks," said Robert Nishikawa, a medical physicist working under a Whitaker Foundation grant at the University of Chicago. "It is a demanding and fatiguing job, requiring a high focus of attention, good vision, magnification aids, specialized view boxes and observer experience. It is difficult to consistently maintain the level of attention that this requires on a daily basis."

To help radiologists meet these demands, Nishikawa and his colleagues are designing a computerized system for analyzing digitized mammograms and offering what amounts to a second opinion. Early studies from Nishikawa's group indicated that computer-aided diagnosis (CAD) could catch about half of the tumors missed by a radiologist working alone.

Nishikawa's lab is concentrating on computer detection of clustered microcalcifications which can indi-



cate the very beginnings of cancer, a curable condition called preinvasive ductal carcinoma in situ.

His group has begun to test the computer system at the University of Chicago by analyzing all screening mammograms at the medical center on a daily basis. The initial goal is to collect results from 1,000 cases.

"For this study, results of the computer analyses are not used in deciding patient care," Nishikawa noted. Instead, all screening mammograms are read twice, once by a radiologist who is part of the research team and once by a clinical radiologist who dictates the official report.

So far, 573 cases have been examined for microcalcifications. In four cases, the computer detected a true cluster. Two of these detections were initially missed by both the research radiologist and the clinical radiologist. In one case, the radiologist found the cluster and the computer missed it.

CAD is done in two steps. The computer identifies the presence of microcalcifications, by focusing on suspicious areas and analyzing them for contrast, area, texture and spatial distribution. If microcalcifications are detected, features of the image are submitted to a neural network trained to distinguish between benign and malignant tumors by analyzing size, shape and other traits.

In addition to identifying cancer, CAD may also be valuable for reducing the number of unnecessary biopsies associated with screening mammograms.

In a previous performance test, 100 mammograms were "read" by the computer. The X-rays were from 19 cancer patients and 35 patients with benign breast disease. The computer correctly identified all 19 breast cancer patients and 26 of the 35 patients with benign tumors. A radiologist who first read these mammograms thought each of the 100 pictures was suspicious, so a biopsy was ordered. CAD, however, correctly identified three-quarters of the benign cases, suggesting that a biopsy was unnecessary for those patients.

Nishikawa's group is one of about 50 nationwide who are working on CAD for breast cancer. The group's next step is to test the CAD system in prospective clinical trials.

The National Cancer Institute estimates 182,000 new cases of breast cancer will occur this year in the United States. About one in eight American women will develop the disease and about one in 33 will die as a result. Mammography is the best method of detecting breast cancer early. Patients have a 90 percent chance of surviving for more than 20 years when the cancer is caught early.

## Research—The Key to Unlocking the Mysteries of Alzheimer's Disease

Although there currently is no cure, scientists are moving closer to pinpointing the basic mechanisms at work in the brain and learning how they go awry in

Alzheimer's disease (AD). The *Progress Report on Alzheimer's Disease 1994* highlights recent advances in the search to find the causes of and treatments for AD. It is published by the National Institute on Aging (NIA), the Institute within the National Institutes of Health with primary responsibility for AD research.

This report provides a brief overview of basic brain function and discusses changes that take place as a result of the disease. Brief summaries of recent research supported by the NIA and seven other Institutes in the National Institutes of Health include:

- Identification of several AD-related genetic mutations, and establishment of a relationship between the gene for a protein, ApoE4, and the development of late-onset AD.
- Discovery of possible clues to the causes of cell death.
- Use of specialized one-on-one activities with patients, to identify ways to prevent, reduce, or manage the disruptive behaviors associated with AD.
- Discovery of an abnormality in skin cells of people with AD that could lead to diagnostic skin tests.

Single copies of the report are available free from the Alzheimer's Disease Education and Referral (ADEAR) Center at 800-438-4380 or write to: The ADEAR Center, P.O. Box 8250, Silver Spring, Maryland 20907-8250.

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# AMS Newsmakers

**Dr. Mark Attwood** of Rison was recently named the new director for the Pine Bluff Area Health Education Center.

**Dr. Edward A. Gresham** of Crossett was recently recertified a Diplomate of the American Board of Family Practice.

**Drs. Charles R. Horton, John R. Nash and Harold F. Stensby**, all of Northwest Arkansas Medical Center, were recently recertified as Diplomats of the American Board of Family Practice.

**Dr. Michael Isaacson**, a cardiologist with the Northeast Arkansas Internal Medicine Clinic in Jonesboro, was recently recertified as a diplomat of the American Board of Emergency Medicine.

**Dr. Don Riley**, a radiologist, received unanimous approval by the Russellville City Council recently in his appointment to the City Corp. board of directors.

**Dr. Patrick J. Savage**, a pulmonologist at the Northeast Arkansas Internal Medicine Clinic in Jonesboro, recently passed the certification examination in addiction medicine administered by the American Society of Addiction Medicine.



*Dr. Harry D. Starnes*

**Dr. Harry D. Starnes** has been named Medical Director of Healthstar Ultima - The Arkansas Health System, a newly formed partnership between St. Vincent Infirmary Medical Center and American Medical International, Inc., of Dallas, Texas.

**Drs. William C. Young, Jr. and John B. Jiu**, both otolaryngologists in Jonesboro, recently attended a training course on laser surgery of the treatment of tattoos, pigmented lesions and vascular lesions. They are board certified specialists in the treatment of ear, nose and throat disorders.

## Physician's Recognition Award

The Physician's Recognition Award is awarded each month to physicians who have completed acceptable programs of continuing education. The AMS members who were recipients for the month of March are as follows:

Jay Owen Brainard	Little Rock
R. Frederick Broach	Little Rock
Doyne Dodd	Little Rock
Joseph Matthews	Little Rock
Thomas Edgar St. Amour	Little Rock

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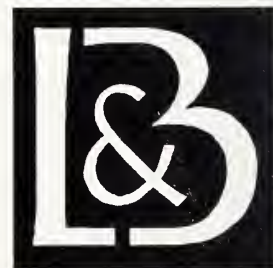
The laws and required programs are extremely complex, and my time is limited.

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**...call them at 800-806-1496.**





# In Memoriam

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## **John Tate Herron, M.D.**

Dr. John Tate Herron, of Little Rock, died Thursday, March 23, 1995. He was 84.

Survivors include his wife, Katherine Smith Herron; two sons, John T. Herron, Jr. of Little Rock and Kirby W. Herron of Grapevine, Texas; an older brother, Temple S. Herron of Oceanside, California; and a sister, Virginia H. Jernigan of Little Rock.

## **John Marshall Hundley, M.D.**

Dr. John Marshall Hundley, of Hot Springs, died Tuesday, April 11, 1995. He was 78 and a member of the AMS Fifty Year Club.

Survivors include his wife, Jeanice Hundley of Hot Springs; a son and daughter-in-law, John M. and Janet Hundley, Jr., of Little Rock, a granddaughter, Heather Hundley, University of Alabama; step-grandchildren, Lee and Melissa Johnson of Little Rock; a brother Winfield Hundley of Lake Arthur, LA; several nieces and nephews.

## **Harold David "Bud" Purdy, M.D. and Mrs. Rita Kennedy Purdy**

Dr. Harold David Purdy, of Little Rock, died Thursday, March 23, 1995. He was 58.

His widow, Mrs. Rita Kennedy Purdy, died April 11, 1995. She was 56.

Survivors of both include a son, Hal Purdy, Jr. of Little Rock; two daughters, Pamela Purdy Walker of Bryant and Rhonda Purdy of Conway.

His other survivors include his parents, Ben L. and

Lucille Purdy of DeWitt; two brothers, Denzil Purdy of Monroe, LA., and Keith Purdy of Houston, TX; and four sisters, Sandra Gaisbauer of Little Rock, Sharon Roberts of Benton, Carloyn Tibbitt of Brownsville, Ind., and Connie Sullivan of Mabelvale.

Her other survivors include two sisters, Martha Lois Houston of Somerville, Tenn. and Susan Coit of Stuttgart.

## **Joseph S. Robinette, M.D.**

Dr. Joseph S. Robinette, of Pine Bluff, died Sunday, April 2, 1995. He was 73.

Survivors include his wife, Cynthia Tivar Robinette; three daughters, Katy Robinette, Jane Robinette Darough, both of Pine Bluff, Priscilla Robinette Clement of Brownwood, Texas; three brothers, George Robinette and Robert Robinette of Conway, Charles Robinette of Sheridan; and one sister, Sarah Faye Robinette of Pine Bluff. He was preceded in death by a brother, C. H. Robinette.

## **Bryant Shaw Swindoll, M.D.**

Dr. Bryant Shaw Swindoll, of North Little rock, died Thursday, March 23, 1995. He was 84.

Survivors include his wife, Hermi Smith Swindoll; a son, William Swindoll of Little Rock; a daughter, Linda Garst of Athens, GA; four grandchildren, Melissa Singleton of Hattiesburg, MS., Dr. Jennifer Garst of Durham, North Carolina, George Bryant Swindoll of Cullowhee, NC, and Reuben Swindoll of Lebanon, OR; five great-grandchildren. He was preceded in death by a son, George M. Swindoll and daughter, Billie Joyce Robinson.

# Resolution

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## **Robert L. Henry, Jr., M.D.**

Whereas, the members of the Pulaski County Medical Society note with sincere sorrow the recent death of our esteemed colleague, Robert L. Henry, Jr., M.D.; and

Whereas, his devotion to this profession was evidenced by his loyal membership in this Society for forty-nine years; and

Whereas, Dr. Henry was loved by his patients and peers alike for his caring and compassionate spirit;

Be it therefore resolved:

That, this resolution be adopted and placed in the permanent files of this Society; and

That, a copy of this resolution be sent to Dr. Henry's family as a token of our heart-felt sadness; and

That, a copy be made available to *The Journal of the Arkansas Medical Society* for publication.

Adopted:

Board of Directors

March 15, 1995

By Order of the Memorials Committee

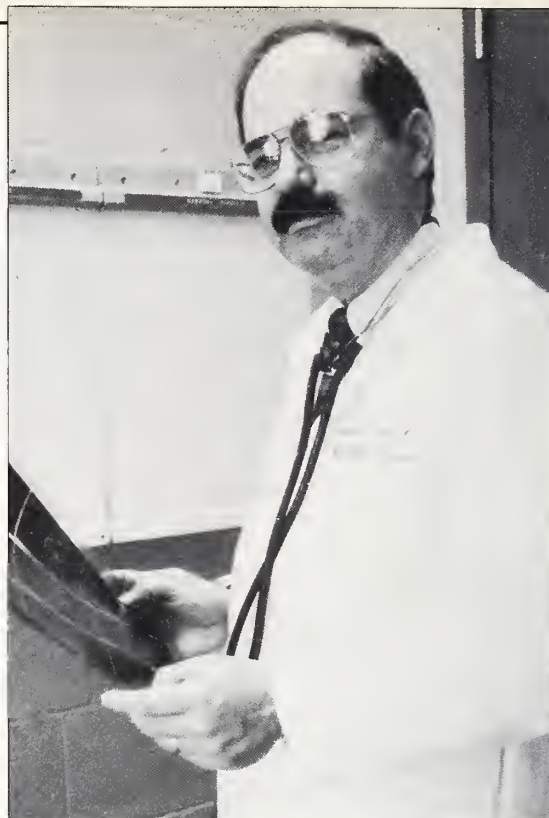
Samuel B. Welch, M.D., Chairman

James W. Headstream, M.D.

Bruce E. Schratz, M.D.

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# Things To Come

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## June 2

**Annual UC Davis Ophthalmology Symposium.** Vizcaya Pavilion, Sacramento, California. Sponsored by the Office of Continuing Medical Education and The University of California Davis School of Medicine and Medical Center. For more information, call (916) 734-5390.

## June 4 - 9

**4th Annual New Orleans Anesthesiology Comprehensive Review & Update.** Hyatt Regency, New Orleans, Louisiana. Sponsored by Tulane University Medical Center Department of Anesthesiology and Office of Continuing Education. For more information, call (504) 588-5466 or 1-800-588-5300.

## June 7 - 9

**Third International Symposium on Maritime Health.** Maritime Institute of Technology and Graduate Studies, Baltimore, MD. Sponsored by the Office of Continuing Medical Education, The George Washington University Medical Center. For more information, call (202) 994-4285.

## June 7 - 10

**2nd Annual Intensive Review of Internal Medicine.** Washington Marriott Hotel, Washington, D.C. Sponsored by the Office of Continuing Medical Education, The George Washington University Medical Center. For more information, call (202) 994-4285.

## June 9 - 10

**9th Annual Frontiers in Endourology - Advanced Laparoscopic Urology: The Best of the Present!** Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call (800) 325-9862.

## June 24 - 28

**3rd Annual Board Review in Family Medicine.** Marriott Crystal Gateway Hotel, Arlington, VA. Sponsored by the Office of Continuing Medical Education, The George Washington University Medical Center. For more information, call (202) 994-4285.

## October 5 - 7

**Contemporary Cardiothoracic Surgery.** The Ritz-Carlton Hotel, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call (800) 325-9862.

## October 8 - 12

**Medical Oncology Board Review Course.** The Ritz-Carlton Pentagon City, Arlington, VA. Sponsored by the Office of Continuing Medical Education, The George Washington University Medical Center. For more information, call (202)994-4285.

## October 13 - 15

**"Advances in Sonography,"** - a fourth annual post-graduate educational course. Sheraton Chicago Hotel and Towers, Chicago, Illinois. Sponsored by The Society of Radiologists in Ultrasound. For more information, call (215) 574-3183.

## December 9

**Cardiology Seminar.** The Ritz-Carlton Hotel, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call (800) 325-9862.

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## 17th Annual Family Practice Intensive Review

June 2-4, 1995, UAMS, Little Rock. Sponsored by UAMS College of Medicine. Presented by Dr. Steven Strode. Category I credit: TBA. Fee: \$300 for physicians and other health care professionals, and \$250 for residents through May 1. \$50 increase in fee thereafter.

## Recurring Education Programs

The following organizations are accredited by the Arkansas Medical Society to sponsor continuing medical education for physicians. The organizations named designate these continuing medical education activities for the credit hours specified in Category I of the Physician's Recognition Award of the American Medical Association.

### FAYETTEVILLE-VA MEDICAL CENTER

General Medical Topics, Thursdays, 12:00 noon, Auditorium, Bldg. 3

Medical Grand Rounds, Thursdays, 12:00 noon, Conference Room, Bldg. 4

### HARRISON-NORTH ARKANSAS MEDICAL CENTER

Cancer Conference, 4th Thursday, 12:00 noon, Conference Room

### LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL

Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium

Genetics Conference, Wednesdays, 12:00 noon, Sturgis Bldg., room 457

Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom

Pediatric Grand Rounds, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium

Pediatric Neuroscience Conference, 1st Thursday, 8:00 a.m., 2nd Floor Classroom

Pediatric Pharmacology Conference, 5th Wednesday, 12:00 noon, 2nd Classroom

Pediatric Research Conference, 1st Thursday, 12:00 noon, 2nd Floor Classroom

### LITTLE ROCK-ST. VINCENT INFIRMARY MEDICAL CENTER

Cancer Conferences, Thursdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.

Chest Conference, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.

General Surgery Grand Rounds, 1st Thursday, 7:00 a.m. Southwestern Bell/ARKLA Room. Light breakfast provided.

Interdisciplinary AIDS Conference, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.

Joint Tumor Conference, 1st Wednesday, 12:00 noon, CARTI Auditorium. Lunch provided.

Journal Club, Tuesdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.

Urology Grand Rounds, Tuesday, May 2, 5:30 p.m., Southwestern Bell/ARKLA room. Refreshments provided.

Mental Health Conference, 3rd Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.

Urology Grand Rounds, 1st Tuesday, 5:30 p.m., Southwestern Bell/Arkla room. Refreshments provided

### LITTLE ROCK-BAPTIST MEDICAL CENTER

Anesthesiology Conference, 3rd Thursday, 7:00 a.m., Conference Room 1

Breast Conference, 3rd Thursday, 7:00 a.m., Conference Room 1

GI Conference, 4th Friday, 11:30 a.m., Conference Room 1

Grand Rounds Conference, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.

Pathology Conference, 1st Tuesday, 3:00 p.m., Pathology Library

Pediatric Grand Rounds, Tuesdays, 12:00 noon, Especially for Women Resource Room, 2nd floor/BMC. Category 1 credit available. Lunch provided.

Pulmonary Conference, Tuesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.

Sleep Case Conference, Fridays, 12:00 noon. Call BMC ext. 1902 for location. Lunch provided.



**MOUNTAIN HOME-BAXTER COUNTY REGIONAL HOSPITAL**

*Lecture Series, 3rd Tuesday, 6:30 p.m., Education Building*  
*Tumor Conference, Tuesdays, 12:00 noon, Carti Boardroom*

**NORTH LITTLE ROCK-BAPTIST MEMORIAL HOSPITAL**

*Chest & Problems Case Conference, 3rd Wednesday, 12:00 noon, Assembly room. Lunch provided.*  
*Grand Rounds, 1st Monday (3rd, chest), 12:00 noon, Assembly room.*

*As an organization accredited for continuing medical education by the Accreditation Council for Continuing Medical Education, the University of Arkansas for Medical Sciences certifies the following continuing medical education activities meet the criteria for Category I of the Physician's Recognition Award of the American Medical Association.*

**LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES**

*ACRC Oncology Forum, Thursdays, 4:00 p.m., UAMS ACRC 2nd Floor Board room, 1.5 credits*  
*Anesthesia Lecture Series, Wednesdays, 4:00 p.m., UAMS Education Bldg., room G/110 A&B*  
*Anesthesia Morbidity & Mortality Conference, Tuesdays, 6:45 a.m.; 2nd & 4th Thursdays, 4:00 p.m., UAMS Education Bldg., room G/110 A&B*  
*Arkansas Blood & Cancer Society Conference, 6th Thursday, 7:30 p.m. Terrace Restaurant, Little Rock*  
*Cardiology Clinical Conference, Mondays, 4:00 p.m., UAMS, room 3S06*  
*Cardiology Graphics Conference, Wednesdays, 12:00 noon, UAMS, room 3S06*  
*CARTI North Tumor Board Cancer Conference, 2nd Wednesday, 12:00 noon, CARTI North, Searcy*  
*Cardiothoracic Surgery Conference, date, time, & location varies*  
*Cardiothoracic Surgery Monthly Journals Club, 4th Saturday, 9:30 a.m., UAMS Surgery Dept. Library, room 2S/28D*  
*Cardiothoracic Surgery Morbidity & Mortality Conference, 2nd Saturday, 9:30 a.m., UAMS Surgery Dept. Library, room 2S/28D*  
*Child Psychiatry Update/Case Conference, 3 Fridays per month, 1:00 p.m., ACH Child Study Center conference room*  
*CME Outreach Program, dates, times & locations vary*  
*Emergency Medicine Didactic Conference 1, Thursdays, 12:00 noon. UAMS Education Bldg., room G/110A&B*  
*Emergency Medicine Didactic Conference 2, Thursdays, 1:00 p.m., UAMS Education Bldg., room G/110A&B*  
*Emergency Medicine Grand Rounds 1, Tuesdays, 3:00 p.m., UAMS Education Bldg., room B/106A&B*  
*Emergency Medicine Grand Rounds 2, Tuesdays, 4:00 p.m., UAMS Education Bldg., room B/106A&B*  
*Endocrinology Case Conference, Fridays, 7:30 a.m., ACRC 3rd floor conference room*  
*Family Practice Grand Rounds, Tuesdays, 12:15 p.m., Family Practice Center, 6th and Elm*  
*Gastroenterology Grand Rounds, Thursdays, 4:00 p.m., Gastroenterology conference room, 3D29*  
*GI/Radiology Conference, Tuesdays, 8:00 a.m., UAMS Radiology conference room, M1/293*  
*Hematology/Oncology Fellow's Forum, Fridays, 8:15 a.m., ACRC Betsy Blass conference room*  
*Interhospital Urology Grand Rounds, 1st Tuesday, 5:30 p.m., St. Vincent Arkla/Bell room*  
*LR Cancer Conference, Wednesdays, 12:00 noon, UAMS ACRC conference room three times a month, CARTI Auditorium once a month*  
*LR Vascular Conference, time & date varies monthly, rotates between UAMS, SVI & BMC*  
*Medicine Grand Rounds, Thursdays, 12:00 noon, UAMS Education Bldg., room G/131A&B*  
*Med/Path Conference, 3rd or 4th Tuesday, 3:00 p.m., UAMS Shorey Bldg., room S/306*  
*Medicine Journal Club, alternate Thursdays, 7:30 a.m., ACC Medicine Clinic conference room*  
*Medicine Research Conference, Wednesdays (except 3rd), 4:30 p.m. UAMS Education Bldg. room B/135*  
*Neurology-Neuropathology Conference, Wednesday's, 4:00 p.m., Room 2E-142 at VAMC*  
*Neurology-Neuradiology Conference, Wednesday's, 5:15 p.m., Radiology Conference Room at UAMS*  
*Neuroscience Clinical Grand Rounds, Monday's, 3:00 p.m., Betsy Blass Conference Room, Arkansas Cancer Research Center*  
*Neuroscience Conference (Basic), Mondays, 8:00 a.m., UAMS 7D33*  
*Neuroscience Conference (Basic & Clinical), Wednesdays, 4:00 p.m., UAMS 7C*  
*Neurosurgery Journal Club, 2nd & 4th Thursdays, 8:00 p.m., 2 credit hours*  
*Neurosurgical Pathology Conference, Thursdays, 4:00 p.m., VAMC-LR Neuropathology conference room, 2E141*  
*OB/GYN Fetal Boards, 2nd Fridays, 8:00 a.m., ACH Sturgis Bldg.*  
*OB/GYN Grand Rounds, Wednesdays, 7:45 a.m., UAMS Education Bldg., room G/131B*  
*Ophthalmology Problem Case Conference, Thursdays, 4:00 p.m., UAMS Jones Eye Institute, 2 credit hours*  
*Ophthalmology Residency Morning Lectures, Mondays, Wednesdays, Fridays, 7:30 a.m., UAMS Jones Eye Institute*  
*Orthopaedic Basic Science Conference, Tuesdays, 8:00 a.m., UAMS Education Bldg., room B/135*  
*Orthopaedic Bibliography Conference, Tuesdays, 8:30 a.m., UAMS Education Bldg., room B/135, 1.5 credit hours*  
*Orthopaedic Fracture Conference, Tuesdays, 7:30 a.m., UAMS Education Bldg., room B/135*  
*Orthopaedic Grand Rounds, Tuesdays, 10:00 a.m., UAMS Education Bldg., room B/135*  
*Pathology Autopsy Conference, Wednesdays, 12:00 noon, VAMC-LR Morgue*  
*Psychiatry Grand Rounds, Fridays, 11:00 a.m., UAMS Child Study Center Auditorium*  
*Surgery Basic Sciences Conference, 1st Saturday, 7:30 a.m., ACRC 2nd floor conference room*  
*Surgery Grand Rounds, Saturdays, 8:30 a.m., ACRC 2nd floor conference room*

*Surgery Morbidity & Mortality Conference*, Saturdays, 9:30 a.m., ACRC 2nd floor conference room  
*Surgery Resident Case Conference*, Saturdays (except 1st), 7:30 a.m., ACRC 2nd floor conference room  
*Trauma Morbidity & Mortality Conference*, date & time varies monthly, ACRC 2nd floor conference room  
*Urology Adult Subject Oriented Conference*, once monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Basic Sciences Conference*, 2nd Tuesdays, 5:00 p.m., VAMC-LR, 4D resident office  
*Urology Clinical Didactic Conference*, 3rd Tuesday, 5:00 p.m., VAMC-LR, 4D  
*Urology Formal Teaching (Grand) Rounds*, once or twice monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Journal Club*, once a month, 5:00 p.m., VAMC-LR, 4D  
*Urology Morbidity & Mortality Conference*, once monthly, 5:00 p.m., VAMC-LR, 4D  
*Urology Pathology Conference*, 4th Thursday, 5:00 p.m., VAMC-LR, 4D  
*Urology Pediatric Conference*, once monthly, 5:00 p.m., ACH Sturgis Bldg., Clinic 2  
*Urology Pre-op/Didactic Conference*, Mondays, 5:00 p.m., VAMC-LR, 4D  
*Urology Radiology Conference*, 1st Thursday, 5:00 p.m., UAMS, Radiology Department  
*Urology Teaching Conference*, Wednesdays, 5:00 p.m., VAMC-LR, 4D  
*Urology VA Teaching Rounds*, every Friday, 7:30 a.m., VAMC-LR, 4D  
*Uro-radiology Conference (Urologic Imaging)*, 1st Tuesdays, 5:00 p.m., UAMS Radiology conference room  
*VA Chest Conference (combined Surgical/Medical Chest Conference)*, Mondays, 12:15 p.m., VAMC-LR, room 2D109  
*VA Diagnostic Imaging Conference*, Monday-Thursday, 8:00 a.m., VAMC-LR Nuclear Medicine conference room, room 1D173  
*VA GREEC/Geriatric Research Conference*, Tuesdays, 4:00 p.m., VAMC-LR, room 2D109  
*VA Hematology/Oncology Conference*, Thursdays, 8:15 a.m., VAMC-LR Pathology conference room 2E142  
*VA Lung Cancer Conference*, Thursdays, 3:00 p.m., VAMC-LR, room 2E142  
*VA Medical Service Teaching Conference*, Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68 room 130  
*VA Medicine-Pathology Conference*, Tuesday, 2:00 p.m., VAMC-LR, room 2D109  
*VA Medicine Resident's Clinical Case Conference*, Fridays, 12:00 noon, VAMC-LR, room 2D08  
*VA Physical Medicine & Rehab Grand Rounds*, 4th Friday, 11:30 a.m., VAMC-NLR Bldg. 68, room 118 or Baptist Rehab Institute  
*VA Surgery Grand Rounds*, Thursdays, 12:45 p.m., VAMC-LR, room 2D109, 1.25 credit hours  
*VA Topics in Rehabilitation Medicine Conference*, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR Bldg. 68, room 118  
*VA Weekly Cancer Conference*, Monday, 3:00 p.m., VAMC-LR, room 2E-142  
*White County Memorial Hospital Medical Staff Program*, once monthly, dates & times vary, White County Memorial Hospital, Searcy

#### **EL DORADO-AHEC**

*Behavioral Sciences Conference*, 1st & 4th Friday, 12:30 p.m., AHEC - South Arkansas  
*Chest Conference*, 3rd Wednesday, 12:30 p.m., Warner Brown Hospital  
*Dermatology Conference*, 1st Tuesdays and 1st Thursdays, AHEC - South Arkansas  
*GYN Conference*, 2nd Friday, 12:30 p.m., AHEC-South Arkansas  
*Internal Medicine Conference*, 1st, 2nd & 4th Wednesday, 12:30 p.m., AHEC-South Arkansas  
*Noon Lecture Series*, 2nd & 4th Thursday, 12:00 noon, AHEC - South Arkansas. Lunch provided.  
*Pathology Conference*, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas  
*Pediatric Conference*, 3rd Friday, 12:30 p.m., AHEC - South Arkansas  
*Pediatric Case Presentation*, 3rd Tuesday, 3rd Friday, AHEC - South Arkansas  
*Arkansas Children's Hospital Pediatric Grand Rounds*, every Tuesday, 8:00 a.m., AHEC - South Arkansas (Interactive video)  
*Pathology Conference*, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas  
*Obstetrics-Gynecology Conference*, 4th Thursday, 12:30 p.m., AHEC - South Arkansas  
*Surgical Conference*, 1st, 2nd & 3rd Monday, 12:30 p.m., AHEC - South Arkansas  
*Tumor Clinic*, 4th Tuesday, 12:30 p.m., AHEC - South Arkansas

#### **FAYETTEVILLE-AHEC NORTHWEST**

*AHEC Teaching Conferences*, Tuesdays & Wednesdays, 12:00 noon, Washington Regional Medical Center  
*AHEC Teaching Conferences*, Fridays, 12:00 noon, Washington Regional Medical Center  
*AHEC Teaching Conferences*, Thursdays, 7:30 a.m., Washington Regional Medical Center  
*Medical/Surgical Conference Series*, 4th Tuesday, 12:30, Bates Medical Center, Bentonville  
*Primary Care Conferences*, 1st & 3rd Mondays, 12:00, every Tuesday 7:30 a.m., Washington Regional Medical Center

#### **FORT SMITH-AHEC**

*Gastroenterology Conference*, 3rd Tuesday every other month, 7:00 a.m., St. Edward Mercy Medical Center  
*Neuroradiology Conference*, 3rd Wednesday, 12:00 noon, St. Edward Mercy Medical Center  
*Neuroradiology Conference*, 1st Tuesday, 11:30 a.m., Sparks Regional Medical Center  
*Sparks Tumor Conference*, Thursdays, 12:00 noon, Sparks Regional Medical Center  
*Tumor Conference*, Mondays, 12:00 noon, St. Edward Mercy Medical Center



## **JONESBORO-AHEC NORTHEAST**

*AHEC Lecture Series*, 1st & 3rd Tuesday, 12:00 noon, Stroud Hall, St. Bernard's Regional Medical Center. Lunch provided.  
*Arkansas Methodist Hospital CME Conference*, 7:30 a.m., Hospital Cafeteria, Arkansas Methodist Hospital, Paragould  
*Chest Conference*, 2nd Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Citywide Cardiology Conference*, 3rd Thursday, 7:30 p.m., Jonesboro Holiday Inn  
*Clinical Faculty Conference*, 5th Tuesday, St. Bernard's Regional Medical Center, Dietary Conference Room, lunch provided  
*Craighead/Poinsett Medical Society*, 1st Tuesday, 7:00 p.m. Jonesboro Holiday Inn  
*Independence County Medical Society*, 2nd Tuesday, 7:30 p.m., Batesville Country Club, Batesville  
*Interesting Case Conference*, 4th Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Jackson County Medical Society*, 3rd Thursday, 7:00 p.m., Newport Country Club, Newport  
*Kennett CME Conference*, 3rd Monday, 12:00 noon, Twin Rivers Hospital Cafeteria, Kennett, MO  
*Methodist Hospital of Jonesboro CME Conference*, 2nd Tuesday, 7:00 p.m., Cafeteria, Methodist Hospital of Jonesboro  
*Neuroradiology Conference*, 3rd Friday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Orthopedic Case Conference*, June 23, 7:30 a.m., Board Room, Northeast Arkansas Rehabilitation Hospital.  
*Perinatal Conference*, 2nd Wednesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Pocahontas CME Conference*, 3rd Wednesday, 12:00 noon & 7:30 p.m., Randolph County Medical Center Boardroom  
*Tumor Conference*, Thursdays, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.  
*Walnut Ridge CME Conference*, 3rd & last Tuesday, 12:00 noon, Lawrence Memorial Hospital Cafeteria  
*White River CME Conference*, 3rd Thursday, 12:00 noon, White River Medical Center Hospital Boardroom

## **PINE BLUFF-AHEC**

*Behavioral Science Conference*, 1st & 3rd Thursday, 12:00 noon, Jefferson Regional Medical Center  
*Chest Conference*, 2nd & 4th Friday, 12:00 noon, Jefferson Regional Medical Center  
*Family Practice Conference*, 1st & 4th Tuesday, 12:00 noon, Jefferson Regional Medical Center  
*Geriatrics Conference*, 3rd Friday, 12:00 noon, Jefferson Regional Medical Center  
*Internal Medicine Conference*, 2nd & 4th Wednesday, 12:00 noon, Jefferson Regional Medical Center  
*Obstetrics/Gynecology Conference*, 2nd Tuesday, 12:00 noon, Jefferson Regional Medical Center  
*Orthopedic Case Conference*, 2nd & 4th Thursday, 12:00 noon, Jefferson Regional Medical Center.  
*Pediatric Conference*, 3rd Wednesday, 12:00 noon, Jefferson Regional Medical Center  
*Radiology Conference*, 3rd Tuesday, 12:00 noon, Jefferson Regional Medical Center  
*Southeast Arkansas Medical Lecture Series*, 4th Tuesday, 6:30 p.m., Pine Bluff County Club. Dinner meeting.  
*Surgery Conference*, 1st Friday, 12:00 noon, Jefferson Regional Medical Center  
*Tumor Conference*, 1st Wednesday, 12:00 noon, Jefferson Regional Medical Center

## **TEXARKANA-AHEC SOUTHWEST**

*Chest Conference*, every other 3rd Wednesday, 12:30 p.m., St. Michael Hospital  
*Neuro-Radiology Conference*, 2nd & 4th Tuesday, 12:00 noon, Wadley Regional Medical Center  
*Residency Noon Conference*, Mondays through Thursdays, 12:00 p.m., AHEC-Southwest Family Practice Clinic  
*Tumor Board*, Fridays, except 5th Friday, 12:00 noon, Wadley Regional Medical Center & St. Michael Hospital  
*Tumor Conference*, every 5th Friday, 12:00 noon alternates between Wadley Regional Medical Center & St. Michael Hospital



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These physicians along with pharmacies, dentists, home health agencies, hospitals, Department of Health, and Department of Human Services have joined forces to support the AHCAF, Inc. These volunteers are part of a unique effort to provide access to quality health care for low-income Arkansans who do not qualify for government assistance, have no form of health insurance and are living at or below the federal poverty level.

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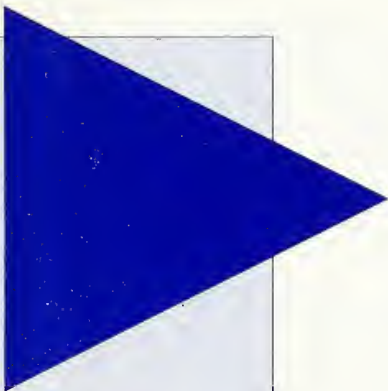
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